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The United States Daily, published in Washington, and presenting the official activities of our National Government, started, on October 25, 1926, a series of articles, each one a brief sketch of the work of a bureau or office of the Government. The Public Health Service was selected as the first Government bureau to be described. The eight service articles appeared as copyrighted material in the issues of October 25 to 30, and November 1 and 2, 1926. Each article was prepared by a staff writer of the United States Daily after an interview with the Surgeon General and the Assistant Surgeons General in charge of each of the seven divisions of the bureau. The Public Health Service is reprinting these eight articles with the permission of the United States Daily, for the information of health officers and sanitarians.

UNITED STATES PUBLIC HEALTH SERVICE

Personal well-being is so obviously an individual and personal characteristic that it is frequently a little difficult to convince a citizen living on the Pacific coast that his health is affected by the activities of an agency of the Federal Government 3,000 miles away. In fact, save in times of epidemic, the average citizen is likely to take little interest in the activities of his local health officials, to say nothing of those of the State or Nation. When there is an outbreak of some contagious disease in his community, he becomes intensely interested in methods of preventing the spread of the contagion. But when the outbreak has abated this interest wanes, and that is why there is another outbreak at some later date.

"In time of peace, prepare for war," was the advice of one whom the world generally concedes to have been wise. And it is advice which can be adapted profitably to the work of those charged with the protection of that vital but rather nebulous thing called public health. Preparation for war in the political and military sense does not mean merely storing up supplies of arms and munitions such as were used in the last war. If it did, modern nations would be using clubs instead of tanks, and bows and arrows instead of poison gas and heavy artillery. Preparation for war means constant efforts to improve weapons and constant diligence to prevent the outbreak of

hostilities; or, if the latter is impossible, then an effort to so localize the outbreaks as to reduce the enemy's potentialities for damage to a minimum.

It is the duty of public health authorities not only to fight epidemics and diseases while they are actually present but to devise means of preventing epidemics and diseases. This is the reasoning back of the elaborate and far-flung system of disease prevention and control which, in the aggregate, is the United States Public Health Service.

In carrying out its duties the Public Health Service employs more than 8,000 men and women, and expends appropriations aggregating more than ten and a half millions of dollars annually.

The organization now known as the Bureau of the Public Health Service had its origin in the Marine Hospital Service, which was established by an act of Congress approved July 16, 1798. This act authorized the President to nominate and appoint medical officers to furnish care to sick and disabled seamen at such ports and other places in the United States as presented needs for services of this nature. It was provided that this care might be given either in hospitals maintained by the United States or in civilian institutions with which contracts might be negotiated.

A tax of 20 cents per month to be collected by collectors of customs from all seamen employed on American vessels engaged in foreign and coastwise trade was the method prescribed by the early legislators for the financing of their first step in safeguarding the public health. It is for this reason that the Public Health Service is a part of the Treasury Department to-day.

The first marine hospital built under the authority of the act of 1798 was at Norfolk, Va., in 1800. In 1802 a hospital was built at Boston, and others followed both along the Atlantic seaboard and along the Mississippi and Ohio Rivers and the Great Lakes.

Necessarily, in caring for sick and disabled seamen in American ports, the medical officers appointed to serve in these early marine hospitals became familiar with the diseases brought into the country from abroad. It frequently happened that these medical officers were the first physicians to diagnose such diseases as cholera, yellow fever, and smallpox, which threatened the welfare of ports of entry. This was particularly true in southern ports, then exposed to frequent dangers from yellow fever.

During epidemics in the early days the Marine Hospital Service frequently received presidential authorization to aid local health authorities in relief and control measures. The marine hospitals and some of the medical personnel as well were used by both the North and South during the Civil War for the care of the military forces.

December 10, 1926

Gradually, Congress began to extend the functions of the Marine Hospital Service, and to make of that organization a Federal health service. In 1878 the service was given authority to impose quarantine to prevent the entry of disease into the United States from abroad. It was not until 1890 that authority was given to impose quarantines to prevent interstate spread of disease, and then the authority was limited to the prevention of cholera, yellow fever, smallpox, and plague. In 1893 this authority was extended to cover all infectious and contagious diseases, and provision was made for cooperation with State and municipal health agencies.

Congress recognized the value of military discipline in an organization which had to combat epidemic diseases, and in 1889 authorized the organization of the Marine Hospital Service along military lines, with officers holding commissions in grades similar to officers of the medical department of the Army.

In 1902 the name of the organization was changed to "The Public Health and Marine Hospital Service," and in 1912 this name was changed to that now borne by the service.

While the public health functions of the service had their inception in the prevention of the introduction and spread of quarantinable diseases, their development was largely the result of changes in public opinion. Investigative functions began with inquiries into the causes of such diseases as yellow fever and cholera. In 1902 the Hygienic Laboratory was established, and to-day this institution is recognized as one of the foremost research centers in the world.

The functions of the service may be summarized as follows:

1. Furnishing medical service to American seamen and other beneficiaries.
2. Protection of the United States from the introduction of disease from without.
3. Prevention of the interstate spread of disease and suppression of epidemics.
4. Cooperation with State and local boards of health as well as with Federal agencies in health matters.
5. Investigation of diseases of man.
6. Supervision and control of biological products.
7. Public health education and dissemination of health information.

One of the functions exercised by the service—that of supervision and control of biological products—is of tremendous importance. It means that all viruses, vaccines, therapeutic serums, toxins, anti-toxins and analogous products applicable to the prevention and cure of diseases of man are tested by the service for purity and potency. The value of such products supervised by the service in one year is well over \$10,000,000.

As organized at present the Surgeon General administers the affairs of the Bureau of the Public Health Service through seven administrative divisions. These are: The Division of Marine Hospitals and Relief, the Division of Domestic Quarantine, the Division of Foreign and Insular Quarantine, the Division of Personnel and Accounts, the Division of Sanitary Reports and Statistics, the Division of Scientific Research, and the Division of Venereal Diseases.

Division of Scientific Research

Save for his superior mental capacity, man enjoys no particular advantage over other forms of life in the struggle against disease. Therefore his most important weapon in that struggle is the application of that mentality to methods of promoting his health. The most effective method of that application devised so far is scientific research through the experimental method.

Granted that the necessity for research exists, the question then presents itself as to whether or not the Government should engage in research. Experience and reason both command an affirmative answer.

While it is true that in the United States as elsewhere a large amount of research connected with the safeguarding of public health is carried on by private agencies, there are, nevertheless, compelling reasons why the Government itself should be represented in this field.

A careful analysis will show that by far the greater part of the research work conducted under private agencies is directed to the solution of problems that are almost entirely local or problems pertaining to curative rather than to preventive medicine. On the other hand, the Government, being interested in the welfare of the entire population, concentrates its efforts upon problems affecting large groups and upon preventive rather than curative methods. Occasionally there is an overlapping, as in the case of syphilis, where to cure one case is to prevent another.

The Government also has a duty to perform in checking up on the results of outside research to determine whether or not much of this information can be recommended for general guidance and in formulating scientific information for administrative purposes. Then, too, there are certain problems which no private agency is equipped to solve. These are problems requiring observations widely distributed in a geographic sense and other problems which can be solved only by concentration of many different research activities working in cooperation and simultaneously. In addition to all of these reasons, there is, of course, the Government's obligation to promote the welfare of the people—an obligation which is not shared by outside private agencies, which, properly enough, have their own ends in view in many of their activities.

December 10, 1928

Recognizing the necessity and propriety of governmental research in the public health field the Congress in the act of August 14, 1912, provided that:

"The Public Health Service may study and investigate the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage and the pollution, either directly or indirectly, of the navigable streams and lakes of the United States."

An earlier act of Congress had established the Hygienic Laboratory in Washington, the scene of an important part of the research activities carried on by the Division of Scientific Research of the Public Health Service.

The scope of the division's activities may be described as follows:

1. The investigative functions have been extended to include every major topic of public health interest. The approaches to the problems have been from several standpoints—(a) of the basic sciences in the laboratory; (b) of clinical study; (c) of epidemiology; (d) of sociology and economics; (e) of vital statistics; (f) of public health administration.

2. The control function (biologic products), authorized by the act of July 1, 1902, has extended to the limitations of the act in so far as permitted by the funds appropriated. It has included researches necessitated by adequate control. The control of biologic products necessitates inspections in many parts of the United States and in those European countries where these are necessary.

The activities of this division have carried its agents into every State in the Union, the insular possessions of the United States, Mexico, and several countries of Europe.

In addition to those activities which it carries on independently the division does not hesitate to cooperate with other agencies doing work within its field. In exchange for opportunities for research and access to material the division always stands ready to cooperate with any Government agency in the solution of problems relating to public health, subject to the consideration of relative importance in terms of service to the country and also subject to limitations of funds and personnel. This same readiness applies to nongovernmental organizations with the additional considerations of their aims, purposes, and good faith.

At various times the division has cooperated in research with many public and private agencies, including the Bureau of Mines, the Bureau of Standards, Johns Hopkins University, Yale, Harvard, the National Research Council, many manufacturing and industrial organizations, and the State boards of health of the various States of the Union.

A topic is considered eligible for investigation by this division provided it is of public-health interest, and if funds and personnel are available, under the following circumstances:

1. The subject is of widespread significance and no adequate solution is at hand.
2. Other agencies are not studying the subject, or at least not from the standpoint of public health.
3. The subject threatens to become of widespread importance, rendering anticipatory research advantageous.

The principal activities of the division at present include:

Studies of a number of diseases of man, including cancer, clonorchiasis, encephalitis lethargica, goiter, influenza, leprosy, malaria, nutritional diseases, pneumonia, Rocky Mountain spotted fever, trachoma, tuberculosis, tularæmia and typhus fever; investigations on the subjects of administrative health practice, child hygiene, drug addiction, industrial hygiene and sanitation, mental health, milk, morbidity, oxidation reduction, stream pollution and salt-marsh mosquito control; and studies and inspections required for the regulation of interstate traffic in biologic products.

Division of Marine Hospitals and Relief

The Division of Marine Hospitals and Relief is part of the Bureau of the Public Health Service which performs the functions for which the service was established by Congress in 1798. At that time, indeed, the organization was known as the Marine Hospital Service; the idea of a Federal health department was something entirely outside the ken of political thought in the infant Nation.

From time immemorial it has been the law of the sea that vessels must provide medical attention for seamen. Hence, when the Congress wished to encourage the embryonic merchant marine of the newborn Republic, one of the means it took was to relieve the ships of the burden imposed by this requirement.

Thus it came about that some of the earliest institutions established by the Federal Government were marine hospitals. Marine hospitals antedated naval hospitals and, in the early days, the former took care of officers and men of the Navy. The first marine hospital in Boston, which, incidentally, was the first general hospital in that city, furnished hospital care for wounded who fought under John Paul Jones.

The earlier hospitals were primitive affairs according to modern standards. Medical knowledge has advanced greatly in the past 137 years and the marine hospitals have kept abreast of the times. Attending specialists augment the regular staff of medical officers; trained graduate nurses and dietitians, as well as skilled physiotherapy aides, are employed. The medical and surgical work of the marine

December 10, 1926

hospitals compares favorably with that of representative hospitals in their respective ports, although some of the hospitals are architecturally obsolete. For instance, the present marine hospitals at New Orleans and San Francisco, built just after the Civil War, were products of a school of thought and medical knowledge which held that hospitals must be of the flimsiest possible construction so that as soon as they became infected with hospital gangrene or some similar unwelcome visitor, the building could be burned. These two hospitals, "built to burn," are still standing awaiting sufficient funds to substitute fireproof structures. It is a marvel that they have not long since realized the purpose for which they were built. Probably, the only reason these structures have not been burned is the ceaseless care with which they are guarded by a well-disciplined personnel. In all the years of the existence of marine hospitals not a single patient has been burned to death in a hospital fire—a most surprising record, particularly when the type of some of the early structures is considered. Hospital fires have occurred, however; the first Chicago Marine Hospital was destroyed in the great fire of 1871.

The marine hospitals in the beginning were financed through a tax of 20 cents per month, later increased to 40 cents, deducted from the wages of each seaman and collected by the collector of customs. Subsequently this was replaced by a tonnage tax and finally by direct appropriations out of the Treasury. It has been nearly 50 years since the 40 cents per month tax was collected, but aged sailors still sailing the seas and coming into the hospitals recall that they helped build these institutions out of their own wages.

There are 25 marine hospitals to-day in various ports of the United States. The policy of the Government is to build such hospitals only in ports where it is more economical to have Government-owned buildings than to provide hospital care through contractual arrangements with private institutions. Provision for the care of seamen is made in 150 ports of the United States and insular possessions and there are always between 3,000 and 4,000 sailors in hospitals under the supervision of this division.

The growth of the merchant marine and the general increase in the population of the United States have been reflected in the expansion of marine hospital functions. More than 300,000 persons annually now apply for treatment or examination at these hospitals or out-patient offices. There were furnished last year 1,321,309 patient days of hospital care and 572,139 out-patient treatments, the latter item including the vaccination of 35,719 beneficiaries against smallpox and typhoid.

Dentistry, a modern hospital necessity, is supplied by 30 full-time dental officers who last year gave to 30,811 beneficiaries 110,320 treatments. In the marine hospital laboratories 192,308 bacteriological

and other clinical laboratory examinations were made, and 37,535 X-ray exposures made for diagnostic purposes.

The marine hospitals are open to personnel of the Army, Navy, and Coast Guard, to patients of the United States Veterans' Bureau, and to injured employees of the United States Government receiving care under the supervision of the Employees' Compensation Commission. The hospital on Ellis Island, New York City, is operated chiefly for diseased immigrants detained by the immigration authorities. It is also the policy of the Government to allow foreign seamen to enter marine hospitals as pay patients when a request is made on their behalf by the master of a foreign vessel or by a foreign consul.

It costs a little more than \$5,000,000 per year to maintain the marine hospitals. Approximately \$500,000 a year is returned to the Government for the various classes of pay patients, including immigrants. The average cost of operation per patient per day has been reduced from \$4.08 in 1923, \$3.84 in 1924 and \$3.80 in 1925 to \$3.71 for the fiscal year ended June 30, 1926. This is lower than the average cost of operation of hospitals belonging to the Army, Navy, or the Veterans' Bureau, and considerably less than that of civilian hospitals furnishing equivalent services and having trained nurses and salaried staffs of physicians and surgeons.

An idea of the costs of operation may be obtained from the figures showing some of the expenditures for hospital supplies during the past fiscal year. Some of the items are adhesive plaster, \$4,347.45; salvarsan and other supplies used in the treatment of syphilis, \$6,410.43; gauze and surgical dressings, \$17,536.28; ether and other anesthetics, \$1,786.98; catgut ligatures for surgical operations, \$2,656.23; soap, \$25,855.23; clinical thermometers, \$2,714.55; X-ray films, \$15,707.85; insulin, \$1,794.

The item for the purchase of insulin suggests the remarkable progress which has been made in the treatment of diabetes since the use of this remedy was initiated. Since its use was introduced there has been a constant increase in the number of diabetes cases admitted to marine hospitals and a constant decrease in the number of deaths. The figures are, 1923, 78 cases and 23 deaths; 1924, 97 cases and 12 deaths; 1925, 108 cases and 9 deaths; 1926, 110 cases and 5 deaths. The figures refer to fiscal years.

Starting out merely as an agency doing relief work for seamen, the Public Health Service has expanded and acquired manifold and varied functions. It was natural for quarantine duties to be added, together with other functions relating to the safety of ships and the welfare of their personnel. It became the agency which examines applicants for license as pilots and other ships' officers who must pass satisfactory tests for vision, color vision, and hearing. Lighthouse keepers are also required to pass similar examinations before they are

December 10, 1926

appointed. The Public Health Service must also vouch for the physical ability of sailors qualifying as "able-bodied seamen," of which the crew of an American ship must have not less than 65 per cent; and since ships' officers must be versed in first aid before licensed by the Steamboat Inspection Service, courses of instruction have been organized in 43 ports where medical officers give the necessary instruction preliminary to examination of the candidates in this subject. The physical examinations, which number nearly 100,000 yearly, include those of the United States Coast Guard recruits, the United States Civil Service, Pension Bureau, and Army training camps.

All medical service for the Coast Guard is furnished by the United States Public Health Service, which also sends its medical officers with the cruising cutters on the Alaska seal patrol and the North Atlantic ice patrol, and wherever else these ships may go.

Alcoholic liquors and narcotics required for medicinal use on board any American or foreign ship in an American port are purchased or otherwise authorized by an officer of the Public Health Service in amounts according to the governing medicinal needs.

At Fort Stanton, N. Mex., a marine hospital is maintained for tuberculous patients where provision is made not only for medical treatment but also for employment of patients who are approaching fitness for discharge. These latter are employed for several months in order to make sure that their return to health has been permanent. Only those tuberculous patients who are expected to recover are sent to Fort Stanton; the others are treated in various port hospitals.

The National Leper Home at Carville, La., is operated by the Public Health Service. There are now about 270 patients there, culled by State health officers from the population at large. Treatments by chaulmoogra oil, X ray and mercurochrome, by violet ray and other lights, as well as by hydrotherapy and many other agents, have yielded encouraging results and some cures are effected. The radio, baseball, moving pictures, a library, a school and religious solace furnished by chaplains and chapels for both Catholics and Protestants bring some measure of contentment to the inmates. Lepre patients physically fit are employed by the Government at nominal pay in light occupations at this institution, thus providing some diversion and a small means of income to those unfortunates, who are, however, clothed and otherwise well cared for at Federal expense.

From 1919 to 1922 the Public Health Service was designated as the principal agency to care for World War veterans in need of hospital care. To do this the service rented hospital space, converted hotels and other buildings to hospital uses, and, in general, did the best it could to meet an unprecedented situation which confronted it unexpectedly.

In 1922, when Congress assigned this work to the Veterans' Bureau, the Public Health Service turned over 57 hospitals with 17,500 beds, 900 physicians, 1,400 nurses, and 9,200 employees. More than a million veterans passed through these hospitals during the time they were under the supervision of the Public Health Service.

The marine hospitals, in addition to their other functions, may be considered as a second line of defense behind the foreign quarantine division in preventing the entry of quarantinable diseases into the country. For example, only recently, a seaman at New Orleans applied to the marine hospital there for treatment. It was found that he was suffering from bubonic plague. The quarantine officials were notified at once and his ship was thoroughly fumigated to destroy the rats and fleas through which this disease is transmitted. Under similar circumstances a seaman who had been admitted at San Francisco was found to be suffering from smallpox. Such cases are rare, of course, because the quarantine regulations are most efficiently administered.

Recently the marine hospitals have made it a practice to transmit medical advice to ships at sea by wireless. These messages must, for the present, at least, be transmitted through commercial stations, but the latter have been very generous in giving this service without charge. It frequently happens that the advice thus given besides aiding the patient enables the ship to continue on its course instead of putting in at some unscheduled port with consequent loss of valuable time and great inconvenience to passengers.

Division of Foreign and Insular Quarantine

The right of one community to protect the health of its members by excluding outsiders afflicted with communicable diseases has been recognized and exercised since the dawn of history. So well established is this right that the principle has never been questioned in all of the countless controversies which have raged over its application to specific cases. Quarantines have been enforced as to individuals, cities, and nations, by methods ranging from religious tabus of the primitive races to the bayonets and warships of the modern and more materialistic peoples.

Geographically, the quarantines of antiquity and, indeed, up to very recent times, were comparatively limited. The methods by which the great scourge diseases were transmitted were not understood and, in many cases, it was thought that so long as physical contact with the diseased persons was avoided, the disease would not spread.

Two chief factors have combined to increase the geographic area of quarantines in modern times. The first is the discovery of the methods whereby diseases are transmitted, and the second is the

December 10, 1926

development of means of transportation which facilitate the transportation of disease bacilli as well as persons and property.

Thus it comes about that all modern civilized States now recognize the need for national quarantines and national agencies to enforce the quarantine regulations. The United States, due to the peculiar relationship between the individual States and the Federal Government, was one of the last of the great powers to put a national quarantine system into operation. In the early years of the Nation's existence the contention was advanced—and upheld by the courts—that the imposition and enforcement of quarantine regulations was an exercise of the police power reserved to the States.

Quite early in its history the Public Health Service was authorized to advise and cooperate with the State health authorities. Gradually this developed to a point where the various States came to realize the advantages of a central system for foreign quarantines and one by one the State legislatures voluntarily turned that function over to the Federal authorities. The Public Health Service now administers the quarantine at all ports of the United States, and this work is done through its Division of Foreign and Insular Quarantine.

This division has two major functions—prevention of the entrance of diseases from foreign countries into the United States, and medical inspection of aliens applying for admission to the United States as immigrants. In the exercise of the first-mentioned function the division has jurisdiction over all ships and all persons, citizens, and aliens coming into American ports from abroad. The second function, of course, has to do with aliens only. In practical operation it has been found necessary to separate the two functions from an administrative standpoint. This was done because in its inspection of immigrants the Public Health Service acts, more or less, as the agent for the Immigration Service of the Department of Labor. The work of the Health Service ceases, with respect to an immigrant, when he has been certified to the immigration authorities as either admissible or inadmissible physically. On the other hand, the Public Health Service has entire charge of the quarantine work at the ports.

There are three lines of defense against the quarantinable diseases cholera, plague, yellow fever, typhus fever, leprosy, smallpox, and anthrax. The first line consists of the public health physicians stationed abroad and working in cooperation with the consular officers to prevent diseases in any form from embarking on vessels bound for the United States; the second line is the system of inspection at the various ports of entry; and the third line is the cooperation between the Public Health Service and local health authorities, especially those at ports of entry, in "follow up" work.

The Public Health Service, once the diseased person has been admitted to the United States, can control only interstate travel of such person. A system of cooperation has been established with city and State health authorities to follow cases released at the ports, such as diphtheria and other nonquarantinable diseases, and to notify the health officer, who cares for such a person until he is taken over by the local health authorities.

Methods of preventing the entrance of quarantinable diseases vary with the diseases, as each spreads by different means and must be blocked accordingly. In the case of cholera, where the avenue of transmission is from person to person via the alimentary tract, the method is to prevent the entrance of any persons suffering from the disease. The work is complicated by the fact that certain persons seem to be immune from cholera themselves but can carry the germs of the disease and transmit them to others. These persons, known as carriers, are more difficult to guard against than persons actually suffering from the disease since the former may be entirely unaware of their condition. Cholera carriers are denied admission to the United States until they are noncarriers, and persons who have been exposed are detained long enough to determine whether or not they have been infected. Cholera, together with all of the other quarantinable diseases except typhus, leprosy and smallpox, has been exterminated in the United States.

Yellow fever, long the terror of the South, is probably the best example which can be cited of a disease almost entirely wiped out of existence by science. At one time there were periodic outbreaks in every southern State and throughout Central and parts of South America, but now the disease is found only in a few isolated districts. The fight against yellow fever was won when it was discovered that the disease is transmitted through one particular species of mosquito, the "*Aedes aegypti*," generally known as the Stegomyia. Once this was ascertained the problem became the elimination of this mosquito on ship and its control on shore. The Stegomyia can fly but a short distance and breeds in fresh water about houses, which make it exceedingly vulnerable to careful control. Since the discovery of the method whereby yellow fever is transmitted, there has been only one outbreak of it in the United States, in 1905.

Plague, another quarantinable disease which claims its victims by the thousands in many parts of the world, is of two varieties—pneumonic and bubonic. The former, while very deadly, has occurred chiefly in Asia, only two outbreaks having occurred in this country. The bubonic variety is an ever present danger for nearly every port in the world. Just as yellow fever was found to be transmitted by the mosquito, so it was found that bubonic plague is transmitted through the combined agency of rats and fleas. The

December 10, 1926

rats themselves are subject to the plague; the fleas live on the rats until the latter die and then the fleas attack any warm-blooded animal, including man, and pass the disease along. Fleas, however, specialize, and different animals have their own species that will live on no other animal except in emergencies. Thus, rats have several varieties, and while all of them theoretically can transmit plague, practical observations and experiments now under way indicate that for practical purposes there is only one or possibly two species of fleas that need be considered. Fumigation of ships to rid them of rats and fleas is one of the methods employed, and considerable progress has been made; but in its search for better methods the Public Health Service has developed the rat proofing of ships, which, if successful, will be a surer and more economical way to remove this danger altogether.

Smallpox is now combated at ports chiefly through the use of the immunity reaction, which indicates whether or not a person may contract the disease. This is effective as a method of determining whether a previous vaccination is still effective and still retains its potency. Persons who have not been vaccinated or whose vaccinations are no longer active submit to another vaccination if they have been exposed to smallpox. No coercion is employed to induce persons to submit to vaccination, but if they are not vaccinated they must be detained in quarantine for 14 days. They rarely remain for that period, but ask to be vaccinated. Smallpox has been one of the historic scourges of man for centuries. Since the discovery of vaccination, about 100 years ago, the ravages of this disease have been curtailed to a remarkable degree, and it could be practically eliminated if vaccination were universal, but experience shows that neglect of this preventive is sooner or later always followed by a recrudescence.

Typhus fever is transmitted by body lice carrying the infection from one person to another. Hence, the method employed in fighting it is to destroy the lice. Just after the World War, when typhus was widespread in Europe, and when it was estimated that 3,000,000 persons died from it in five years, it was asserted by those in touch with the situation that the peasant classes of Europe were practically 100 per cent infested with body lice. It was at this time that the steamship companies installed their delousing plants on advice of quarantine officers stationed abroad, and all persons arriving were scrubbed and disinfected, if not scrupulously clean. At present less than one-tenth of 1 per cent of the persons arriving at American ports are found to be infested, and it is reported that on account of the requirements of the United States Public Health Service there has been a great improvement in conditions abroad, particularly in places where body lice had long been accepted as a matter of course.

Anthrax is much less important. It has been demonstrated that this disease has been frequently transmitted to man through infected bristles of shaving brushes. Consequently, all shaving brushes imported to the United States must be made from bristles that have been disinfected.

Leprosy, the other quarantinable disease, is treated in a manner somewhat different from the others. It is still the same enigma to science that it has been for centuries. Some progress has been made in the treatment of leprosy through the injection of chaulmoogra oil derivatives, but the nature of the disease and how this treatment is of benefit are still unknown. When a leper arrives at an American port he is sent to the Federal Leprosarium at Carville, La., if he is an American citizen. If he is an alien he is deported. This disease does not present the problems of rapid incubation and free transmission that occur in connection with the other quarantinable diseases.

Persons found suffering from diseases in the quarantinable group are cared for in the Public Health Service hospitals until danger of transmitting the disease to others is past. Then, if they are American citizens, they are released. If they are aliens they are passed on to the immigration authorities.

In cooperation with the Department of Labor the Public Health Service, through its Division of Foreign Quarantine, makes the physical examinations for all prospective immigrants. During the fiscal year ending June 30, 1926, the officers of the division examined 614,972 applicants for admission and 872,842 alien seamen. Many of these examinations of immigrants were made abroad under the new system inaugurated in 1925, which has eliminated most of the heartaches and suffering of the old system and has excluded the unfit to an extent never before possible.

So far as physical condition is concerned, prospective immigrants are divided into three classes: Class A, those having defects which make them mandatorily excludable under the law; class B, those whose defects are not such as to make exclusion mandatory, but which may interfere with the applicant's ability to earn a living; and class C, those having minor defects which do not affect their admissibility but which are noted, nevertheless.

Division of Sanitary Reports and Statistics

It is a fundamental principle that in any warfare the success of the conflict largely depends upon our knowledge of whether there be an enemy, when, where, and in what numbers he may be found, and so in the fight against disease from a public health standpoint, whether it be municipal, State, national or international, it is of fundamental importance that responsible officials have early, accurate, and com-

December 10, 1926

plete knowledge as to the presence or absence of the important communicable diseases. In the absence of such knowledge there will be either a lack of vigilance, which may end in disaster, or, what is of vast importance in these days of commercial enterprise and rapid communication, there will be a futile and unnecessary expensive outlay against a supposed danger which does not exist.

This has, within the past few decades, been brought out, particularly in the matter of yellow fever. So long as infectible countries, such as ours, knew of the general existence of yellow fever but did not know the exact endemic centers of this disease, elaborate precautions had to be taken at our maritime quarantine stations against all yellow-fever-suspected areas, whereas, at present, with our intelligence service, such precautions have been waived with benefit to commerce.

The collection and dissemination of information concerning the prevalence of disease is of increasing importance in this age of speedy transportation facilities. For instance, it is possible that a person infected with typhoid fever may, even by motor, traverse the entire width of the country before the completion of the incubation period of this disease.

The division of sanitary reports and statistics of the Public Health Service may well be described as the intelligence office of the Federal health agency, whose intelligence, however, is used throughout the world by other governments, as well as by our own local and State agencies. Broadly speaking, the work of this division has two general phases—first, the collection from all parts of the world, including our own country, of information having a bearing on the maintenance of public health, and, second, the dissemination of this information in such manner and to such persons and organizations as will make it most valuable. Between the collection and dissemination of information there is, of course, the very important work of compilation.

The information employed by the division is secured from many sources, local, State, Federal, and international. To begin with, every consul and consular officer stationed abroad makes a weekly report to the Public Health Service as a part of his routine duties. The reports are made on forms provided by the Public Health Service and bearing a list of the more important communicable diseases. The consular officer obtains reports from health officials of the country to which he is accredited, and from these reports and such other sources as are available he fills in the information required on the form and mails it to the Public Health Service. These reports by mail cover the following diseases: Cerebrospinal meningitis (epidemic); cholera, Asiatic; cholera nostras, cholerine, or gastroenteritis; diphtheria; measles; plague, human; plague, rodent; poliomyelitis (acute anterior poliomyelitis or infantile paralysis); scarlet fever;

smallpox; tuberculosis; typhoid fever (enteric fever, typhus abdominalis); typhus fever (typhus exanthematicus); and yellow fever.

In cases where there is an outbreak of plague, cholera, yellow fever, or typhus fever in his territory the consul promptly cables this information, instead of mailing it. Owing to this method of transmitting information it occasionally happens that a ship which has left a foreign port before one of these outbreaks reaches an American port in ignorance of the fact, and the master of the ship gets his information concerning the disease from the American health authorities.

Cholera, plague, yellow fever, typhus, smallpox, leprosy, and anthrax are classified as quarantinable diseases. This means that when a ship reaches port from an area in which there has been an outbreak of one of them, or with a case of one of these diseases on board, there are special measures of disinfection and segregation which are taken to prevent any spread of the contagion or infection in the United States.

Reports from consular officials abroad are the principal sources upon which the Public Health Service depends for what may be distinguished as its current information on world health conditions. In addition, however, the service receives all of the bulletins and other documents issued by the health section of the League of Nations, the International Hygiene Office in Paris, and similar agencies. Most of these, of course, are at least a month old when they reach the United States, but they are valuable records for statistical purposes.

The United States has what is called sanitary treaties with all of the important nations of the world (International Sanitary Convention of Paris), as well as a regional agreement with Pan American countries (Pan American Sanitary Code). These sanitary agreements, which have the force of treaties, provide for an international exchange of information relating to public health. This means that all of the nations of Central and South America receive regularly all the data on public health gathered by the world-wide information system of the United States, this information being cabled in case of emergency conditions. This is of immense value to some of the small States which do not have their own facilities for such purposes. This activity at the present time is largely an "export" business so far as the United States is concerned, but from some countries reciprocal reports of great value are received.

In the domestic field the Public Health Service is kept informed of conditions by weekly reports mailed in from local health officials in 570 cities of 10,000 or more population. These reports cover the prevalence for their respective territories of the following diseases: Chicken pox, diphtheria (carriers not included), influenza, measles, mumps, pneumonia (all forms), scarlet fever, smallpox, tuberculosis (all forms), typhoid fever, whooping cough, cerebrospinal fever,

December 16, 1926

dengue, lethargic encephalitis, pellagra, poliomyelitis (infantile paralysis), rabies (in man) (developed cases), rabies (in animals), typhus fever.

The local officials who send in these reports are classified as "collaborating epidemiologists" of the Public Health Service and are paid \$1 a year. Their reports are mailed under Government "frank" upon cards provided for that purpose.

In addition to the reports mailed in each week from the 570 cities, the service also receives weekly telegraphic reports from health officials of the various States.

These reports from city and State officials and from the consular officers abroad constitute the basis of the information contained in PUBLIC HEALTH REPORTS, which is issued weekly by the Public Health Service and sent to nearly 10,000 public health officials, sanitaria, libraries, and institutions throughout this country and abroad.

The reports, beside tabular statements of domestic and foreign conditions indicating the state of public health, contain special articles on various phases of public health work and summaries of current works on sanitary engineering, as well as abstracts of current court decisions affecting public health work. It may be remarked here that the experience of many years indicates that the courts in nearly every instance apply the tests of common sense and reasonableness to acts of public health officials which come before the courts for review.

When there has been an outbreak of some particular disease necessitating special measures by the service, in cooperation with city and State health officials, it is the practice to include in the PUBLIC HEALTH REPORTS an account of these activities.

The editing and distribution of PUBLIC HEALTH REPORTS is one of the functions of the Division of Sanitary Reports and Statistics.

It may be asked, Of what use is all of this statistical and other information? Some may doubt the value of informing a public health official in California of an epidemic of influenza in Massachusetts. But it is axiomatic in public health work that disease can not be prevented unless the health officials know where, when, and under what circumstances communicable diseases occur.

The value of reports of this kind was strikingly demonstrated during the influenza epidemic a few years ago. The epidemic originated, so far as the United States is concerned, in Boston and spread westward across the country. It was found that public health officials in touch with the situation could predict almost to the day when cases of this disease would be reported in the Middle Western and Western States along the line of march of the "flu" bacillus. And

to be forewarned of epidemics of this character is more than half the battle of combating them.

The Division of Sanitary Reports and Statistics was the first organization to take up the idea of radio broadcasting of talks on health topics on a large scale. These talks are prepared by medical officers of the service and are broadcast from the naval station at Arlington. Multigraphed copies are sent to other broadcasting stations throughout the country, and frequently they are "put on the air" by these stations.

Another function of the division is handling the vast number of requests for literature and information on health topics which pour into the Public Health Service. The service now has nearly 2,000 publications which may be sent in reply to such requests. When a request comes in for information not given in any of these publications, an effort is made to refer the inquirer to sources from which he can obtain what he desires. Frequently inquiries on subjects falling within the scope of other agencies of the Government are referred to those offices for reply. Likewise it happens quite often that other departments and bureaus receive requests for information which can be supplied by the Public Health Service. A regular system of interchange of such requests has been worked out. In the course of the last fiscal year ending June 30, 1926, a total of approximately 380,000 copies of publications was sent and individual replies made in response to requests for information.

Division of Personnel and Accounts

Every organization which operates over a wide geographic area needs a central control office, a nerve center, so to speak, which directs the movements of the distant members. So the United States Public Health Service, which has the earth and the air above and the waters, if any, underneath the earth, for its sphere of activity, has a dispatcher's office in the guise of its Division of Personnel and Accounts. It is through this division that each of the more than 8,000 men and women who comprise the personnel of the service came into the organization; and it is through this office that these same men and women are moved about in the great game which the Public Health Service plays with disease as its opponent and the world as its chess board.

Being a mobile organization and required to meet public health emergencies, the Public Health Service is organized and conducted under strict disciplinary rules. This necessitates adequate central control and means to attend to the mechanics of movements and other matters affecting personnel. In fact, there must be some specific office charged with the keeping of records of appointments, promotions, discontinuances, leaves of absence, changes of station,

December 10, 1926

and maintenance of discipline in accordance with the laws and regulations on the subject. It is the Division of Personnel and Accounts which does all these things for the Public Health Service. In addition the division looks after the preparation of estimates of appropriations to carry on activities, recommends apportionments of appropriations in conformity with law, makes allotments to conduct the several activities, and maintains records of all finances and expenditures, including an elaborate system of cost accounting for the manifold operations of the Public Health Service.

The addition of new laws relating to accounting and to reclassification and retirement of employees renders these records essential to the proper administration of public health activities. Moreover, the Division of Personnel and Accounts is the property office of the Public Health Service. Every article which the service uses, from a laboratory microscope to a hospital ambulance, must be properly accounted for from the time it is purchased until it is worn out and condemned. It is through this division that all records of property and supplies are maintained and surplus supplies at one station distributed to other stations as may be needed.

If any function of the division is more important than the others it is the recruiting and giving commissioned personnel opportunity for experience in the larger duties they will be called upon later to perform. It was this training and experience that enabled officers of the Public Health Service to make investigations of far-reaching importance. By this means, light was thrown on the transmission of yellow fever; the cause of hookworm disease in America was discovered, and tularæmia, a disease peculiar to America, was identified and its method of transmission established. Moreover, through experience, officers are able to engage in highly technical investigations affecting the public health. A candidate for appointment in the regular corps is required to pass a thorough examination before a board of medical officers. These examinations are held at intervals in various large cities of the United States for those candidates who, after application, have been invited by the Surgeon General to participate. The examinations consist of oral, written, and laboratory tests necessary to determine the candidate's mental and physical aptitude, as well as professional attainments. The service makes no allowance for the expenses of candidates appearing for examination.

Applicants must be between the ages of 23 and 32, citizens of the United States, graduates of a reputable medical college, and must have served an internship in an approved hospital for one year, or have practiced medicine for two years. An average of 80 per cent in all branches is required for admission to the service. Appointments are made by the President on recommendation of the Surgeon

General and subject to confirmation by the Senate. When this confirmation has been given, the candidates become assistant surgeons and are assigned to duty.

At this point in the career of the young Public Health Service officer it becomes the duty of the Division of Personnel and Accounts to see to it that he is given such assignments as will provide him with a well-balanced experience, necessary to the solution of larger problems while he remains in the service. So far as practicable, during the first four years he is in the service, the young officer is detailed for duty at a marine hospital, a quarantine station, an immigration station, Hygienic Laboratory, and in public health work in the field, in the order named.

The length of time the officer spends on each detail depends upon his previous training and the exigencies of the service. Where possible and within limits, consideration is given to the preference of the individual officer.

After four years' commissioned service, an assistant surgeon is eligible for promotion, after examination, to the grade of passed assistant surgeon. Passed assistant surgeons after 12 years' commissioned service may be promoted to the grade of surgeon. Promotions to the grades of senior surgeon and Assistant Surgeon General are made as vacancies occur by promotion of the ranking surgeon or senior surgeon, respectively. Before such promotions are made, the officer is required to pass a physical examination, and his record is reviewed by a board of officers.

The pay of commissioned officers of the Public Health Service ranges from \$2,699 for an assistant surgeon to \$7,179 for an Assistant Surgeon General, both without dependents. For officers having dependents, the salary range is \$3,158 to \$7,200. A Surgeon General receives \$7,500 if he has dependents, and \$7,179 if he has none. These salaries are established by the same law which fixes those of officers of the Army and the Navy. The grades are comparable to those of medical officers of the Army and Navy. Advances in pay in higher grades are dependent, however, upon length of service rather than promotion in rank. By reason of legislative restrictions of long standing, promotions in the higher grades are almost negligible.

All other personnel of the Public Health Service is selected from lists of eligibles established by the Civil Service Commission under civil service law and regulations. The diverse system of appointment sometimes presents difficulties when men of special scientific attainments are required for specific work involving change of station. It would be highly desirable from the standpoint of the Public Health Service if all medical and scientific personnel subject to emergency and liable to changes of station were selected in the same manner as the commissioned officers. The adoption of this policy would pro-

December 10, 1926

mote scientific investigations and be in the interest of efficient administration.

For administrative purposes the Public Health Service divides the country into six sanitary districts with a medical director assigned to each district. Through these directors the Surgeon General keeps in touch with State and local health authorities, universities, industries, and other interests favorably affected by public health work. These directors also make inspections of service stations and activities with a view to their coordination, investigate administrative difficulties, and devise means for the prevention and suppression of epidemics liable to occur within their districts. The ordinary routine of stations is handled by the officers in charge. The district directors accordingly act largely in an advisory capacity without the necessity of considerable personnel.

The present is an age of specialization, particularly in the field of medicine, and thus it happens that within the service there are groups of officers having special qualifications for solving particular problems. Some of these officers may be devoting their time regularly to investigations of communicable diseases, nutritional diseases, the health hazards of industry, or other public health problems. But when an emergency arises in any district, selection and detail of personnel must be made to meet it. In such cases the Division of Personnel and Accounts is the channel through which the Surgeon General transmits his orders. All epidemic situations are met in this manner. These movements of personnel are limited as much as possible, however, by the policy of having officers with all-round training distributed here and there so as to meet emergency situations as they arise.

During the fiscal year ended June 30, 1926, there were many extra routine demands upon the Public Health Service for the services of specialized personnel. There was the extension of the immigration inspection work to European ports, the fight against the spread of bubonic plague in California, the tetraethyl lead investigation, the investigation of the shellfish industry, investigations and administration of methods to safeguard milk supplies, and advisory work with the Office of Indian Affairs. All of these demands required the selection and disposition of qualified personnel.

In addition, there are constant demands from private and semi-public organizations for assistance and instruction in public health matters. Officers are detailed, therefore, to attend meetings of associations for the promotion of public health. It is the policy of the service to supply speakers wherever possible and where the importance of the occasion merits, for the dissemination of public health information and to cooperate with and aid State and local authorities in the solution of public health problems which arise in connection with

administration. It is necessary for some agency to evaluate for the Surgeon General the relative importance of the demands received. This decision devolves largely upon the Division of Personnel and Accounts because of its knowledge of the availability of officers from day to day.

Division of Domestic Quarantine

"Quarantine," by which is meant any forced stoppage of travel, communication, or intercourse on account of contagious or infectious diseases on land or by sea, was probably the earliest known method used to prevent the introduction of disease. Isolation and quarantine, in the sense of holding vessels and people until danger of disease was supposed to have passed, were naturally in use for ages before the actual modes or methods for transmission of communicable disease were known, and during the colonial period each of the colonies had more or less adequate provision for its protection from the introduction of exotic disease from abroad.

When the United States came into being, with its unique system of balance between Federal and State powers, health matters, which are universally regarded as police powers, were, by inference, left to the control of the several States. The control of foreign and interstate communication, however, was, of course, given to the Federal jurisdiction. Among the early laws passed in the first decade after the Constitution were those enjoining Federal officials (Army, revenue cutter, customs, etc.) to assist the several States in the enforcement of their quarantine laws. There were few or no laws other than local providing for the possibility of the interstate spread of disease. With the introduction of the railroad and steamboat, with consequent increase in travel and communication, the necessity for coordinated effort was seen, and by consent of the States, and under the commerce clause of the Constitution, laws were passed providing for Federal control both of interstate and maritime quarantine functions.

The Domestic Quarantine Division of the Public Health Service came into being in 1910. Its functions may be summarized as follows:

1. Enforcement of the interstate quarantine regulations of the United States.
2. Development of State departments of health, especially divisions of communicable diseases and sanitary engineering.
3. Control over water supplies used for drinking and culinary purposes on railroads, vessels, and other interstate carriers.
4. Sanitation of the national parks in cooperation with the National Park Service.
5. Measures for the control and prevention of trachoma.
6. Studies of and demonstrations in rural sanitation.

December 10, 1926

7. The annual conference of State and Territorial health authorities with the Public Health Service.

8. Other contacts with State and Territorial health officials relating to health administration.

Some idea of the extent of the duties imposed upon the division by the requirement that it enforce the interstate quarantine regulations may be gleaned from the first paragraph of these regulations, which reads:

"For the purpose of interstate quarantine the following diseases shall be regarded as contagious and infectious diseases within the meaning of section 3 of the act approved February 15, 1893: Plague, cholera, smallpox, typhus fever, yellow fever, typhoid fever, para-typhoid, dysentery, pulmonary tuberculosis, leprosy, scarlet fever, diphtheria, measles, whooping cough, epidemic cerebrospinal meningitis, anterior poliomyelitis, Rocky Mountain spotted or tick fever, gonorrhea, chancreoid, anthrax, influenza, pneumonia, epidemic encephalitis, septic sore throat, rubella, and chicken pox."

And paragraph 2 of the same regulations provides that:

"Any person or thing, either living or dead, which has been unduly exposed to or in intimate contact with or is infected with any of the diseases enumerated in section 1, except as otherwise provided in these regulations, shall be regarded as contagious or infectious until the contrary has been proved, and if found in any car, vessel, vehicle, or conveyance undergoing interstate transportation, shall be subjected to such inspection, disinfection, or other measures as may be necessary to prevent the spread of the infection from them."

It will be appreciated that these regulations impose an undertaking of considerable magnitude upon the Division of Domestic Quarantine. The regulations cover almost every conceivable situation which might arise in connection with the travel of persons suffering from communicable diseases and the travel of things subject to infection. Provision is also made for the sanitation of interstate common carriers and for the supervision of drinking water and food supplies used on such carriers.

One of the activities of the Public Health Service in connection with interstate travel is the sanitary control over all water supplies used for drinking or culinary purposes on interstate carriers. It is obvious that this is a tremendous task. The water included in this description comes from more than 2,800 sources. Control over this supply from a sanitary standpoint is practicable only because of the cooperation given the Public Health Service by the State and city health authorities. There are many indirect results from this function of the Public Health Service. It has been found that when the water supply of a certain city has been adjudged unfit for use on trains in interstate traffic, these cities are usually quick to

improve their water supply. The local citizenry is prone to feel, and quite properly, that what is not good enough for the traveler passing through their city is not good enough for the home folks.

Sanitation in the national park reservations is a most important phase of the work of the Domestic Quarantine Division. Tourists from every State in the Union visit these parks each year, and if proper precautions were not taken the parks might easily become national focal points of disease distribution. Disposal of sewage and protection of water supplies are the principal subjects with which the public-health officials have to deal in the national parks.

The suppression of epidemics naturally falls within the jurisdiction of the Domestic Quarantine Division. An outbreak of bubonic plague at Los Angeles, Calif., in recent years was suppressed by an active campaign against rodents combined with extensive rat proofing of buildings and the elimination of rat harborages. Similar steps against the same disease have been effective at San Francisco, Oakland, Calif.; New Orleans; Pensacola; Galveston and Beaumont, Tex. The ground squirrels of California have been found to be carriers of the disease, and squirrel-free zones have been maintained around certain ports to prevent the infected squirrels from coming in contact with city rats and causing an extensive plague infection—first of the rats, and later of human beings.

It was the Division of Domestic Quarantine which directed the investigation of the shellfish industry during the past year following upon an outbreak of typhoid fever attributable to infected oysters. The investigation resulted in the adoption of methods to prevent infection of the oysters through cooperation with the shellfish industry and State health authorities.

Rural sanitation is a subject in the development of which the Public Health Service takes an active interest through studies and demonstration work. The counties have been encouraged to work in this field in the past through allotments from Federal funds. The local communities now spend about \$9 for this work for every dollar contributed by the Federal Government. Demonstration projects in which the division is now participating include: General sanitation, child and maternity hygiene, tuberculosis control, acute communicable disease control, and school hygiene.

For the fiscal year ending June 30, 1926, the appropriations for the work of the Domestic Quarantine Division totaled approximately \$450,000.

Division of Venereal Diseases

Back in 1911 the Public Health Service wanted to do something which, it hoped, would bring about a reduction in the prevalence of venereal diseases among the patients in the marine hospitals. At

December 10, 1926

that time—and for that matter to-day—about 22 per cent of the work of the marine hospitals had and has to do with venereal infections of one kind or another.

So, in 1911, the Public Health Service prepared a booklet containing the facts then known about venereal diseases, stated in plain and simple language. The intention was to distribute the booklet among the seamen and others who were cared for in the marine hospitals.

The booklet was sent to the Treasury Department for approval and was promptly sent back with a message that it contained matter which was indecent and improper for the Government to print. And that attitude was sustained by higher officials and the booklet was not printed.

However, as far back as 1875 the problem of venereal diseases, their prevention and control, was considered by the United States Public Health Service. The annual report for 1875 contained a number of recommendations for the prevention of the introduction of syphilis and gonorrhea into the United States, and suggestions for the treatment of those already infected, which are as germane to the problem to-day as they were at that time. "If these regulations were adopted," the report states, "a better sanitary as well as moral state of society would prevail generally."

Nearly 40 years elapsed before the medical and quarantine measures recommended by the service for the control of these diseases had been adopted generally in the United States.

Ehrlich discovered salvarsan in 1910, which discovery, more than any other one thing, resulted in tangible and effective measures for the control of syphilis. The Public Health Service secured the first shipment of this drug to the United States and cooperated in its first administration in this country.

The World War brought the country to a state of mind in which it was willing to look reality in the face, and the Government assumed its share of responsibility of informing the public frankly concerning the nature and prevention of venereal diseases and in applying medical and other measures of control.

Early in the war the Public Health Service participated with other agencies in a campaign for the protection of the armed forces undergoing training at the various cantonments. On January 2, 1918, active steps were taken for the official organization of a plan for the nation-wide control of these diseases. Overtures were made to each of the State boards of health for the purpose of enlisting the forces of these organizations. The responses were very encouraging, and by May 24, 1918, 32 States had undertaken systematic efforts to control the spread of venereal infections.

A more concerted effort for the control of these diseases was made possible by an executive order of July 1, 1918, which placed all

Federal health activities other than those of the Army and Navy under the supervision and control of the Public Health Service. On July 9 Congress passed the Chamberlain-Kahn Act creating in the Public Health Service a Division of Venereal Diseases, and appropriating more than \$4,000,000 for use during the two following fiscal years to carry out the duties imposed by this act. Under the provisions of this act the functions of the division are as follows:

- (1) To study and investigate the cause, treatment, and prevention of venereal diseases.
- (2) To cooperate with State boards or departments of health for the prevention and control of such diseases within the States, and
- (3) To control and prevent the spread of these diseases in interstate traffic.

A tremendous impetus was given to venereal-disease control work as a result of the interest and leadership of the Public Health Service in this movement. During the first 12 months after the passage of this act every State in the Union except four was prosecuting vigorous measures for the control of venereal diseases in accordance with the cooperative plan outlined by the Public Health Service, and at the present time all States are conducting venereal-disease control programs.

It is interesting to compare the attitude of the Government toward venereal-disease control work in 1919 with that of 1911. As a part of the educational work carried on by the Division of Venereal Diseases the country in 1919 was being furnished with millions of educational pamphlets and informational bulletins far more frank in their treatment of the serious subject of venereal diseases than the modest booklet suggested in 1911, which had been deemed indecent and improper for the Government to publish.

In this cooperative endeavor medical, educational, and law-enforcement activities were featured. An important feature in the control of venereal diseases has been the provision of facilities for the treatment of indigent persons suffering from these diseases as the best means of preventing their future spread. More than 900 cooperative clinics have been established by States, counties, cities, and institutions where treatment is given free or at a nominal charge. A total of 915,638 patients has been admitted and 13,835,321 treatments have been given at these clinics.

These clinics have, since 1918, made 1,959,446 Wassermann tests and 1,409,089 microscopic examinations for gonococcus infection. Nearly every State board of health provides laboratory facilities to aid the physicians in diagnosing these diseases.

Many cases affected with a venereal disease never seek treatment by a physician, and all physicians do not report cases under their

December 10, 1926

care, but 2,800,000 cases of venereal diseases have been reported to State health departments during the past eight years.

One of the most valuable phases of modern public-health effort has been the educational campaign in its attack on venereal diseases. The history of measures for the control of no other disease reveals that public enlightenment has proceeded so rapidly, with the result that a wholesome attitude toward matters of sex is being developed.

The educational work may be divided into two groups—general public educational work and a specific program of sex education to be carried on in schools and colleges. As a part of the educational program the service has prepared more than 100 different publications, and over 30,000,000 copies of such publications have been distributed. Seven card exhibits for use in public gatherings have been prepared and widely used. Stereopticon slides and posters have been prepared and displayed. In cooperation with State boards of health arrangements have been made to send lecturers to speak before many audiences, giving them essential information on the nature of venereal diseases and methods of their prevention and control.

To encourage the program of sex education in the schools the service has prepared bulletins giving outlines of courses, exhibits stressing physical fitness, and a 12-reel motion-picture film depicting the story of the reproduction of life, the prevention of disease, and rules of personal hygiene.

Sex education includes not only instruction concerning the reproductive function but all teaching and training in the home, church, and school which tends to form normal and wholesome attitudes and ideals in regard to sex and to shape character and conduct in accordance with such attitudes and ideals.

Several studies have been made of the status of sex education in schools. The last one, in 1925, showed that remarkable progress has been made in the inclusion of approved methods of sex education.

A successful effort has been made to secure essentially uniform laws throughout the United States concerning the control of venereal diseases. All States now require these diseases to be reported and control measures are applied in a manner similar to other contagions. Under certain conditions cases which continue to spread the disease are quarantined.

Most States have laws forbidding the sale of "quack" remedies for venereal treatment. Uniform laws and ordinances have been adopted governing the control of prostitution and making the transmission of venereal diseases a crime. These laws, however, should be enforced in a more satisfactory manner.

The study of the cause, treatment methods, and the prevention of venereal diseases has occupied the attention of the Division of

Venereal Diseases. Various investigations have been made which have been of great value in promoting more effective measures of prevention and control.

Investigations have been made of venereal-disease prevalence among various groups of persons as regards sources of infection, age, and other factors. It is interesting to note that a considerable proportion of these diseases, particularly syphilis, are acquired innocently.

The division also serves as a clearing house of knowledge regarding methods of venereal-disease control in foreign countries. Information gathered by officers of the Public Health Service is made available to the health officials of the States and to others interested.

Some of these reports from abroad are quite significant. In Denmark, for example, where for 116 years the Government has required all persons infected with a venereal disease to submit to treatment supplied free by the Government, it has been found that syphilis has decreased by approximately 33 per cent in the past quarter century. Gonorrhea also showed a decline during that period, though the fall was not so great.

In order to provide facilities for the study of practical problems connected with clinic management, methods of treatment and prevention, the Public Health Service in 1920 established in cooperation with the Interior Department a clinic at the Hot Springs National Park. At this clinic various new drugs have been given practical tests to determine their relative efficacy in producing a cure, and much practical knowledge concerning clinic management has been gained, and this information has been given to the State venereal disease-control officers.

Owing to the reduction in the appropriations for the division, which for the present year amount to \$75,000, the venereal-control activities have been considerably curtailed. Since the fiscal year 1925 no funds have been available for allotment to States for cooperative work. As a result, considerable decrease in the activity of many of the States is noticed, although a fair proportion of them are carrying on an active venereal disease-control program.

The following figures indicate the extent and importance of the work of the Division of Venereal Diseases: For the fiscal year 1925 the service received reports of 200,584 cases of syphilis, 165,523 cases of gonorrhea, and 6,706 cases of chancroid. For the fiscal year 1926 reports from the same sources were: Syphilis, 215,547; gonorrhea, 166,656; and chancroid, 7,129. In 1925, 495 clinics reported 62,543 admissions for syphilis, 39,636 for gonorrhea, and 2,843 for chancroid infections. The encouraging factor in the situation is the increased interest which has been aroused among State and local authorities and the public in general. The nature of the diseases makes it certain that the battle will be a long one.

PUBLIC HEALTH ENGINEERING ABSTRACTS

The Destruction of Rat Fleas by Heat on Board Ship.—R. K. Shaw, J. Roy. Nav. M. Serv., 1925, v. 11, 255-60 (3 refs.). (Abstracted by M. E. Delafield.) From *Bulletin of Hygiene*, vol. 1, No. 2, February, 1926, p. 159.

"This investigation was conducted on board H. M. S. *Endeavour* off the West Coast of Africa with a view to discovering a convenient and certain emergency method of destroying rat fleas in clothing and bedding. Seven experiments on about 60 rat fleas were performed. The fleas were placed between blankets or on their surface and exposed to a hot atmosphere, the site in most cases being the engine room, port side, over the water-feed tank. The results indicate that all rat fleas are destroyed in a dry blanket, if folded not more than twice, by exposure to 110° F. for three hours, such a temperature being constantly present in this engine room while at sea. The fleas were found, however, to withstand a high temperature for a prolonged period if kept moist.

"This method of killing fleas has proved to be of practical value in such a ship as the *Endeavour*."

Antimalarial Operations on the Eastern Bengal Railway—Khulna Branch. T. H. Bishop, chief medical officer, Eastern Bengal Railway, Calcutta. *Indian Medical Gazette*, vol. 61, No. 7, July, 1926, pp. 337-343. (Abstract by J. A. Le Prince.)

The author thinks three factors should be considered in antimalaria operations by railways: (1) Results achieved may be in part reduced in value by adjacent conditions close to railroad premises; (2) by the large infective focus or group that harbor malaria parasites and feed the mosquito carrier; (3) and by the group of persons who by careless habits allow themselves to be infected.

He considers the antimalaria campaign instituted by the St. Louis Southwestern Railway of the United States as the most successful disease-prevention campaign (after the Panama Zone control) where the mosquito factor was considered, and that a somewhat similar campaign might be possible and might yield good results along the Eastern Bengal Railway.

The campaign conducted included 29 stations, was in charge of four traveling medical officers who visited each family in railway quarters once weekly, made necessary examinations, and so far as possible saw that the course of treatment laid down was carried out. In the families of employees Indian nurses were provided.

Each medical party consisted of a medical graduate, an Indian nurse, and an instructional sanitary "Jamador" to point out things that could be done on a small scale, such as control of small nearby Anopheles sources, cleaning undergrowth, removing garbage, etc.

Of the railway population of the Khulna branch, 2,000 persons, 38 per cent, were treated for malaria by the visiting medical officers. In a single season, of 514 vases of primary malaria 306 were apparently cured and 208 were relapses or reinfections.

The writer thinks that night duty and lack of regular diet are important factors in increasing susceptibility to malaria. The percentage of malaria cases to population at 29 stations on the Khulna branch varies from 18 to 68 per cent, but where station forces are small one case gives a high percentage rate. The stations are frequently located close to swamps, and Anopheles-producing borrow-pits close to them are common.

It is proposed to continue the "propaganda-with-treatment" campaign.

The writer advises railway administrators to consider the effect on health of man-made topographical changes near stations, to consider the future health status of employees in connection with location of sites for stations, quarters, offices, etc. He advises against the dumping camps of newly imported labor in midst of a railway colony and against drainage operations being so carried out as to increase the Anopheles output in place of decreasing it.

(*Abstractor's comment.*)—A survey made at Panama during the canal-construction period showed that the forces working on night shifts had a lower malaria rate than that of the dayworking forces. The writer states that in the work of the St. Louis Southwestern Railway in the United States a large special staff and adequate funds were available and the campaign was designed as a cooperative measure between the railway and the adjacent municipalities. During the first year of the American railway work only \$3,000 was available. These funds were so used as to demonstrate to a number of municipalities that it would pay them a handsome financial return to cooperate with the efforts of the railroad. The railroad was losing potential profits because of malaria prevalence. It therefore invested each dollar so as to get that dollar back several times each year forever after the work had advanced, and it accomplished its objective. While it is not known how many thousands of dollars per year the Eastern Bengal Railway is losing because of malaria prevalence, yet the abstractor (who initiated the first work done by the St. Louis Southwestern Railway and selected the worst malaria section to start the demonstration in, with a view to proving to the railroad executives that malaria control means increased railroad revenue) feels sure that properly directed malaria control, including preliminary emergency control measures not mentioned by the writer, may be as important to the Eastern Bengal Railway and many other railways in the British colonies in the Tropics as is the upkeep of track and rolling stock. It is to be hoped

December 18, 1926

that the directors and executives of more British and more American railroads will before long investigate their present unnecessary annual financial loss caused by malaria, and thus obtain that worth-while increased income which is within their reach but yet ignored by them. The total amount spent to date by the St. Louis Southwestern Railway for malaria control as compared with the profits gained by increased efficiency of its employees, by increased freight handled, and increased development of its territory is a relatively small amount. Its investments in malaria control are decreasing, while its income from the territory sanitized is increasing.)

Cresol Saponified as a Larvicide. C. Strickland, professor medical entomology, School Tropical Medicine and Hygiene, Calcutta, and D. N. Roy, assistant professor medical entomology, in the same institution. (Including a note on the cresols by Maj. A. D. Stewart.) *Journal Royal Army Medical Corps*, vol. 46, No. 3, September, 1926, pp. 188-195. (Abstract by M. A. Barber.)

Varying dilutions of saponified cresol in water were applied to *Anopheles rossi* and to *Stegomyia* and other culicines. In a dilution of 1 in 10 by 5 all larvæ were killed in 42 hours, but in a dilution of 1 in 10 only about 15 per cent died in 24 hours. Toxicity is less marked in dilutions made in polluted river waters. *Anophelines* are more resistant to this larvicide than *stegomyia* and culicines, and pupæ more resistant than larvæ. Fish and shrimps were relatively much more affected than larvæ. Dilutions of saponified cresol rapidly lose their efficacy. In field trials the authors found a dilution of 1 in 50,000 the greatest of any utility, and this would represent a relatively prohibitive cost. Major Stewart's note summarized: The germicidal coefficient of a coal-tar disinfectant is no sure guide to its larvicidal value; and the proportionate amount and nature of its constituents have to be considered in gauging its larvicidal power; the hydrocarbon oils probably play a much larger part than might be thought, in comparison with the phenoloids; the comparative larvicidal power of the "phenoloid" series has apparently not been determined as has the germicidal power; the composition of the diluting water is of importance.

Larvicidal Action of Cresol. Maj. C. H. Harold, Royal Army Medical Corps. *Journal Royal Army Medical Corps*, vol. 46, No. 3, September, 1926, pp. 180-187. (Abstract by M. A. Barber.)

The larvicidal as well as the germicidal efficiency of the cresol tested is enhanced by increase of temperature; by the presence of acid, although in excess of the amounts of acid obtaining in nature; and by the presence of common salt. However, a cresol may be highly germicidal but a relatively poor larvicide. A cresol may produce torpor in a mosquito larva which may appear to be dead, but will subsequently revive, especially if left on the surface of

water or otherwise well aerated. Exposure to nonlethal solutions of cresol may increase the resistance of larvæ to solutions ordinarily lethal. The presence of organic silt lining a pool may retard the action of cresol on larvæ.

The author tested the effect of cresol on the culicine *A. punctor* and on *Anopheles bifurcatus*. Pupæ were more resistant than larvæ to the cresols tested and the anophelines more resistant than the culicines. A cresol tested in the presence of organic silt was effective against the culicine in a 1 in 20,000 dilution and against the anopheline in a 1 in 10,000 dilution.

Design of Small Sewage Disposal Plants. F. Johnstone Taylor, consulting engineer, Warrington, England. *Canadian Engineer*, vol. 51, No. 11, September 14, 1926, pp. 285-287. (Abstract by Rudolph E. Thompson.)

Description and discussion of sewage disposal systems for individual houses or institutions. Suitable designs of septic tanks and of contact beds and percolating filters for treatment of septic-tank effluents are described and illustrated. The importance of simplicity in design is emphasized.

Developments in Methods of Sewage Disposal. C. G. Gillespie, director, bureau of sanitary engineering, California State Board of Health. *Pacific Municipalities*, vol. 40, No. 8, August, 1926, pp. 303-317. (Abstract by C. G. Gillespie.)

The article is a rather nontechnical review of the evolution of sewage treatment from its beginning in England about 70 years ago. A point stressed is the great need of deeper understanding of the scientific use of the lower flora and fauna in sewage treatment and the achievements of the present due to the bit of knowledge now possessed. Considerable space is devoted to the rapid development of the activated sludge method and its success and suitability to California conditions because of potential freedom from odors and the need of irrigation water which it can supply, and production of an excellent fertilizer. There are now three good-sized activated sludge plants in California: Lodi, population 8,000, uses ridge and furrow aeration with sludge dried on soil beds; Pasadena, population 100,000, ridge and furrow aeration, now buries sludge filtered on an Oliver filter, but is about to dry it by direct heat driers; Pomona, population 20,000, uses the Manchester type of aeration with anaerobic digestion of sludge in the Imhoff tank ahead of the aerators.

Report of the Bureau of Uncinariasis of the Department of Health, 1924-25. *Porto Rico Health Review*, vol. 1, No. 10, April, 1926, pp. 29-38. (Abstract by D. L. Augustine.)

The bureau of uncinariasis was created in 1923 to take charge of the increasingly important work of prevention and treatment of

December 10, 1926

uncinariasis. The work of the bureau consists largely in sanitation to prevent infection and in giving treatments for the cure of the disease. During the year 22,408 latrines were approved, and it is now estimated that over one-fourth of the total rural population is provided with sanitary accommodations. During the year 36,239 rural inhabitants were examined, of which over 90 per cent were found infected with hookworms; 139,585 treatments were given to 38,269 persons, most of whom were freed of their parasites.

The work of the bureau is divided into three principal phases: (1) Sanitation, (2) conservation, and (3) treatment.

Observations on the Development of Hookworm Larvæ. P. R. Maplestone. *Annals of Tropical Medicine and Parasitology*, vol. 20, No. 2, June, 1924, pp. 167-173. (Abstract by D. L. Augustine.)

A series of experiments shows that urine has a definite effect in destroying both hookworm eggs and freshly hatched larvæ. The eggs are killed in urine after 9 to 14 days. It was found that 4 days' complete immersion in water kills about 25 per cent of a given number of hookworm eggs and that a steady diminution occurs in the number of viable eggs recoverable from water as immersion is continued. After a period of five weeks' immersion all the eggs appear to be dead. From these observations it seems safe to conclude that septic tanks would have some effect in reducing hookworm infection, the actual reduction being directly dependent on the time the feces remained in the tank.

DEATHS DURING WEEK ENDED NOVEMBER 27, 1926

Summary of information received by telegraph from industrial insurance companies for week ended November 27, 1926, and corresponding week of 1925. (From the Weekly Health Index, December 2, 1926, issued by the Bureau of the Census, Department of Commerce)

	Week ended November 27, 1926	Corresponding week, 1925
Policies in force.....	66,126,032	62,247,321
Number of death claims.....	10,451	10,192
Death claims per 1,000 policies in force, annual rate..	8.2	8.5

Deaths from all causes in certain large cities of the United States during the week ended November 27, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925. (From the Weekly Health Index, December 2, 1926, issued by the Bureau of the Census, Department of Commerce)

City	Week ended Nov. 27, 1926		Annual death rate per 1,000 corresponding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Nov. 27, 1926 ²
	Total deaths	Death rate ¹		Week ended Nov. 27, 1926	Corresponding week, 1925	
Total (66 cities).....	6,726	12.1	12.0	707	671	3.58
Akron.....	29			7	4	75
Albany ⁴	31	13.6	11.9	4	4	83
Atlanta.....	65			8	12	
White.....	31			4	10	
Colored.....	34	(*)		4	2	
Baltimore ⁴	214	13.8	12.6	32	19	98
White.....	165			25	11	94
Colored.....	49	(*)		7	8	112
Birmingham.....	86	20.5	17.7	9	16	
White.....	34			3	5	
Colored.....	49	(*)		6	11	
Boston.....	228	15.1	13.8	35	23	98
Bridgeport.....	24			1	3	17
Buffalo.....	151	14.5	11.4	15	8	63
Cambridge.....	22	9.4	13.1	2	5	36
Camden.....	27	10.7	10.5	4	1	67
Canton.....	21	10.0	11.8	3	1	66
Chicago ⁴	634	10.8	10.6	68	59	59
Cincinnati.....	148	18.8	12.2	13	7	81
Cleveland.....	188	10.2	12.1	17	29	44
Columbus.....	73	13.4	12.8	5	3	47
Dallas.....	47	12.1	10.5	6	4	
White.....	37			6	2	
Colored.....	10	(*)		0	2	
Dayton.....	43	12.7	11.5	2	1	33
Denver.....	76	13.9	14.1	5	10	
Des Moines.....	35	12.5	12.2	3	2	50
Detroit.....	280	11.3	11.0	55	44	90
Duluth.....	22	10.2	13.2	1	3	23
El Paso.....	32	15.3	14.9	6	4	
Erie.....	31			9	2	176
Fall River ⁴	28	11.1	10.9	1	10	16
Flint.....	22	8.4	10.8	4	2	68
Fort Worth.....	42	13.8	6.1	10	0	
White.....	33			8	0	
Colored.....	9	(*)		2	0	
Grand Rapids.....	27	9.0	10.5	1	5	14
Houston.....	43			7	5	
White.....	32			3	4	
Colored.....	11	(*)		4	1	
Indianapolis.....	88	12.5	12.9	1	3	8
White.....	74			1		9
Colored.....	14	(*)		0		0
Jersey City.....	61	10.0	14.4	9	12	68
Kansas City, Kans.....	36	16.0	13.0	2	8	39
White.....	26			2	3	45
Colored.....	10	(*)		0	5	0
Kansas City, Mo.....	84	11.7	13.9	7	5	
Los Angeles.....	250			28	21	78
Louisville.....	79	13.2	13.1	6	10	51
White.....	60			4	8	39
Colored.....	19	(*)		2	2	140
Lowell.....	21			3	6	58
Lynn.....	23	11.5	15.7	1	2	26
Memphis.....	52	15.3	16.1	7	6	
White.....	26			3	2	
Colored.....	26	(*)		4	4	
Milwaukee.....	89	9.0	9.4	6	13	28
Minneapolis.....	95	11.4	11.0	0	9	0

¹ Annual rate per 1,000 population.

² Deaths under 1 year per 1,000 births. Cities left blank are not in registration area for births.

³ Data for 64 cities.

⁴ Deaths for week ended Friday, Nov. 26, 1926.

⁵ In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Norfolk, 38; Richmond, 32; and Washington, D. C., 23.

December 10, 1926

Deaths from all causes in certain large cities of the United States during the week ended November 27, 1926, infant mortality, annual death rate, and comparison with corresponding week of 1925—Continued

City	Week ended Nov. 27, 1926		Annual death rate per 1,000 cor- responding week, 1925	Deaths under 1 year		Infant mortality rate, week ended Nov. 27, 1926
	Total deaths	Death rate		Week ended Nov. 27, 1926	Corre- sponding week, 1925	
Nashville ⁴	63	24.0	13.8	7	1	—
White.....	34	—	—	2	1	—
Colored.....	29	(?)	—	5	0	—
New Bedford.....	22	—	—	4	0	69
New Haven.....	42	12.0	12.8	4	4	55
New Orleans.....	160	19.9	16.6	13	14	—
White.....	99	—	—	5	11	—
Colored.....	61	(?)	—	8	3	—
New York.....	1,250	11.0	11.7	129	141	52
Bronx Borough.....	147	8.5	9.4	16	11	53
Brooklyn Borough.....	439	10.2	10.2	55	52	56
Manhattan Borough.....	520	14.4	16.2	43	61	48
Queens Borough.....	108	7.4	6.7	11	11	50
Richmond Borough.....	36	13.1	11.7	4	6	70
Newark, N. J.	82	9.3	9.7	12	12	58
Norfolk.....	31	9.3	10.8	1	4	20
White.....	16	—	—	0	2	0
Colored.....	15	(?)	—	1	2	53
Oakland.....	59	11.8	8.2	6	3	70
Oklahoma City.....	26	—	—	2	3	—
Omaha.....	57	13.8	11.8	6	2	64
Paterson.....	23	8.4	12.1	3	5	51
Philadelphia.....	443	11.5	10.9	50	34	67
Pittsburgh.....	135	11.1	14.4	22	13	73
Portland, Oreg.	69	—	—	1	2	10
Providence.....	62	11.8	13.0	7	8	58
Richmond.....	54	14.9	16.5	4	5	50
White.....	28	—	—	3	3	58
Colored.....	26	(?)	—	1	2	35
Rochester.....	66	10.7	11.0	3	2	24
St. Louis.....	233	14.6	13.3	26	12	—
St. Paul.....	59	12.4	11.0	2	3	18
Salt Lake City ⁴	29	11.4	12.7	5	0	76
San Antonio.....	64	16.3	16.3	8	9	—
San Diego.....	35	16.6	17.2	1	3	21
San Francisco.....	144	13.2	12.7	8	7	48
Schenectady.....	25	14.0	10.7	3	2	86
Seattle.....	71	—	—	6	3	58
Somerville.....	15	7.8	10.5	2	1	57
Spokane.....	28	13.4	11.0	4	3	93
Springfield, Mass.....	38	13.7	15.0	4	6	62
Syracuse.....	40	11.3	12.3	3	3	38
Tacoma.....	25	12.3	14.0	0	2	0
Toledo.....	66	11.7	8.2	4	4	39
Trenton.....	34	13.2	12.6	3	2	51
Utica.....	31	15.7	18.0	3	3	68
Washington, D. C.	126	12.4	12.3	9	14	52
White.....	80	—	—	4	6	33
Colored.....	46	(?)	—	5	8	91
Waterbury.....	18	—	—	2	1	47
Wilmington, Del.	27	11.4	12.8	2	3	44
Worcester.....	45	12.2	13.9	6	6	72
Yonkers.....	24	10.8	7.3	2	2	45
Youngstown.....	30	12.5	10.4	5	10	63

⁴ Deaths for week ended Friday, Nov. 26, 1926.

⁵ In the cities for which deaths are shown by color, the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 13; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Norfolk 38; Richmond, 32; and Washington, D. C., 25.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary and the figures are subject to change when later returns are received by the State health officers

Reports for Week Ended December 4, 1926

ALABAMA	Cases	ARKANSAS—continued	Cases
Chicken pox	20	Mumps	3
Dengue	2	Pellagra	11
Diphtheria	88	Scarlet fever	12
Influenza	33	Smallpox	3
Malaria	18	Tuberculosis	16
Measles	6	Typhoid fever	21
Mumps	13	Whooping cough	18
Ophthalmia neonatorum	2		
Pellagra	4		
Pneumonia	48		
Poliomyelitis	2		
Scarlet fever	24		
Smallpox	11		
Trachoma	5		
Tuberculosis	32		
Typhoid fever	19		
Typhus fever	1		
Whooping cough	12		
ARIZONA			
Chicken pox	1	Measles	809
Diphtheria	1	Mumps	181
Measles	16	Poliomyelitis:	
Scarlet fever	10	Glendale	1
Trachoma	11	San Luis Obispo County	1
Tuberculosis	41	Scarlet fever	217
Typhoid fever	1	Smallpox	21
Whooping cough	3	Tuberculosis	197
ARKANSAS		Typhoid fever	10
Cerebrospinal meningitis	1	Whooping cough	70
Chicken pox	29	COLORADO	
Diphtheria	8	Chicken pox	47
Hookworm disease	8	Diphtheria	24
Influenza	83	German measles	2
Malaria	64	Influenza	4
Measles	3	Measles	40

December 10, 1926

COLORADO—continued

	Cases
Mumps	1
Pneumonia	6
Poliomyelitis	1
Scarlet fever	138
Septic sore throat	2
Smallpox	19
Tuberculosis	13
Typhoid fever	3
Whooping cough	6

CONNECTICUT

Chicken pox	143
Diphtheria	32
German measles	3
Influenza	13
Measles	69
Mumps	9
Pneumonia (broncho)	22
Pneumonia (lobar)	42
Scarlet fever	58
Septic sore throat	3
Tuberculosis (all forms)	35
Whooping cough	33

DELAWARE

Anthrax	2
Chicken pox	5
Diphtheria	3
Pneumonia	2
Scarlet fever	18
Tuberculosis	2
Typhoid fever	2
Whooping cough	3

FLORIDA

Chicken pox	6
Dengue	1
Diphtheria	37
Malaria	4
Measles	2
Mumps	3
Pneumonia	8
Scarlet fever	17
Smallpox	28
Tuberculosis	10
Typhoid fever	19
Whooping cough	2

GEORGIA

Cerebrospinal meningitis	1
Chicken pox	25
Diphtheria	62
Hookworm disease	1
Influenza	65
Malaria	15
Measles	12
Mumps	2
Pneumonia	34
Scarlet fever	17
Septic sore throat	13
Smallpox	20
Tetanus	2
Tuberculosis	4
Typhoid fever	22
Whooping cough	5

IDAHO

	Cases
Chicken pox	34
Measles	33
Pneumonia	1
Scarlet fever	39
Smallpox	7
Trachoma	1
Tuberculosis	1
Whooping cough	42

ILLINOIS

Cerebrospinal meningitis:	
Cook County	1
Knox County	1
Chicken pox:	636
Diphtheria	142
Influenza	17
Lethargic encephalitis:	
Cook County	1
Macon County	1
Measles	408
Mumps	90
Pneumonia	232
Poliomyelitis:	
Crawford County	1
Jersey County	1
Lawrence County	1
McHenry County	1
Scarlet fever	293
Smallpox	15
Tuberculosis	291
Typhoid fever	54
Whooping cough	221

INDIANA

Chicken pox	275
Diphtheria	126
Influenza	60
Measles	49
Pneumonia	13
Scarlet fever	212
Smallpox	151
Tuberculosis	42
Typhoid fever	10
Whooping cough	175

IOWA

Chicken pox	59
Diphtheria	30
Measles	19
Mumps	3
Pneumonia	3
Poliomyelitis	2
Scarlet fever	30
Smallpox	15
Tuberculosis	5
Typhoid fever	3
Whooping cough	1

KANSAS

Cerebrospinal meningitis—Ellinwood	1
Chicken pox	202
Diphtheria	38
German measles	2
Influenza	5
Measles	51

KANSAS—continued		Cases	MASSACHUSETTS—continued		Cases
Mumps	4		German measles	11	
Pneumonia	45		Influenza	12	
Poliomyelitis—Fort Scott	1		Lethargic encephalitis	2	
Scarlet fever	95		Measles	49	
Smallpox—			Mumps	180	
Topeka	10		Ophthalmia neonatorum	28	
Scattering	7		Pneumonia (lobar)	73	
Tuberculosis	24		Poliomyelitis	3	
Typhoid fever	9		Scarlet fever	345	
Whooping cough	40		Septic sore throat	4	
LOUISIANA					
Cerebrospinal meningitis	1		Trichinosis	1	
Diphtheria	29		Tuberculosis (pulmonary)	77	
Influenza	24		Tuberculosis (other forms)	22	
Malaria	16		Typhoid fever	14	
Measles	29		Whooping cough	125	
Pneumonia	32		MICHIGAN		
Scarlet fever	26		Diphtheria	123	
Smallpox	1		Measles	68	
Tuberculosis	15		Pneumonia	69	
Typhoid fever	10		Scarlet fever	204	
MAINE					
Chicken pox	62		Smallpox	9	
Diphtheria	3		Tuberculosis	29	
Influenza	2		Typhoid fever	5	
Measles	105		Whooping cough	111	
Mumps	1		MINNESOTA		
Pneumonia	11		Chicken pox	343	
Scarlet fever	39		Diphtheria	81	
Septic sore throat	1		Pneumonia	3	
Tuberculosis	6		Measles	86	
Typhoid fever	2		Scarlet fever	217	
Vincent's angina	1		Smallpox	7	
Whooping cough	45		Tuberculosis	50	
MARYLAND ¹					
Cerebrospinal meningitis	1		Typhoid fever	7	
Chicken pox	178		Whooping cough	9	
Diphtheria	58		MISSISSIPPI		
Dysentery	1		Diphtheria	37	
German measles	4		Scarlet fever	22	
Impetigo contagiosa	2		Smallpox	4	
Influenza	23		Typhoid fever	19	
Lethargic encephalitis	1		MISSOURI		
Measles	34		(Exclusive of Kansas City)		
Mumps	11		Cerebrospinal meningitis	5	
Paratyphoid fever	2		Chicken pox	38	
Pneumonia (broncho)	31		Diphtheria	52	
Pneumonia (lobar)	35		Epidemic sore throat	6	
Scarlet fever	53		Glanders	2	
Septic sore throat	4		Influenza	10	
Tuberculosis	35		Measles	106	
Typhoid fever	9		Mumps	7	
Typhus fever	1		Pneumonia	3	
Vincent's angina	2		Scarlet fever	113	
Whooping cough	61		Trachoma	10	
MASSACHUSETTS					
Cerebrospinal meningitis	4		Tuberculosis	52	
Chicken pox	164		Typhoid fever	5	
Conjunctivitis (suppurative)	4		Whooping cough	25	
Diphtheria	115		MONTANA		
			Chicken pox	55	
			Diphtheria	1	
			German measles	1	
			Measles	105	

¹ Week ended Friday.

December 10, 1926

MONTANA—continued		NORTH CAROLINA	
	Cases		Cases
Mumps.	8	Chicken pox.	150
Scarlet fever.	63	Diphtheria.	120
Smallpox.	16	German measles.	3
Typhoid fever.	1	Malaria.	1
Whooping cough.	1	Measles.	42
NEBRASKA		Scarlet fever.	93
Chicken pox.	121	Septic sore throat.	2
Diphtheria.	9	Smallpox.	72
Influenza.	11	Typhoid fever.	7
Measles.	6	Whooping cough.	245
Mumps.	13	OKLAHOMA	
Pneumonia.	10	(Exclusive of Oklahoma City and Tulsa)	
Scarlet fever.	33	Cerebrospinal meningitis—Grady County.	1
Septic sore throat.	7	Chicken pox.	22
Smallpox.	18	Diphtheria.	58
Typhoid fever.	23	Influenza.	152
Whooping cough.	33	Malaria.	50
NEW JERSEY		Pneumonia.	60
Chicken pox.	226	Poliomyelitis—Greer County.	1
Diphtheria.	119	Scarlet fever.	44
Dysentery.	1	Smallpox:	
Influenza.	15	McCurtin County.	33
Measles.	41	Scattering.	0
Pneumonia.	121	Typhoid fever.	42
Poliomyelitis.	5	Whooping cough.	32
Scarlet fever.	170	OREGON	
Typhoid fever.	10	Cerebrospinal meningitis.	
Whooping cough.	205	Chicken pox.	37
NEW MEXICO		Diphtheria.	19
Cerebrospinal meningitis.	1	Influenza.	18
Chicken pox.	4	Measles.	42
Diphtheria.	8	Mumps.	10
Dysentery.	1	Pneumonia.	16
German measles.	2	Scarlet fever.	47
Influenza.	2	Septic sore throat.	4
Measles.	17	Smallpox.	18
Mumps.	1	Trachoma.	2
Pneumonia.	2	Tuberculosis.	15
Scarlet fever.	33	Typhoid fever.	1
Trachoma.	1	PENNSYLVANIA	
Tuberculosis.	7	Cerebrospinal meningitis—Philadelphia.	
Typhoid fever.	7	Chicken pox.	982
Whooping cough.	1	Diphtheria.	211
NEW YORK		German measles.	20
(Exclusive of New York City).		Impetigo contagiosa.	9
Anthrax.	3	Malaria.	2
Chicken pox.	582	Measles.	702
Diphtheria.	116	Mumps.	58
Dysentery.	1	Ophthalmia neonatorum:	
German measles.	44	Allentown.	1
Influenza.	16	Philadelphia.	2
Malaria.	1	Pneumonia.	44
Measles.	957	Poliomyelitis:	
Mumps.	141	Philadelphia.	1
Pneumonia.	228	Red Lion.	1
Poliomyelitis.	7	Scabies.	8
Scarlet fever.	196	Scarlet fever.	453
Septic sore throat.	3	Tuberculosis.	73
Smallpox.	20	Typhoid fever.	60
Tetanus.	2	Whooping cough.	361
Typhoid fever.	31		
Vincent's angina.	2		
Whooping cough.	302		

² Deaths.

	RHODE ISLAND	WASHINGTON—continued	
	Cases	Cases	
Chicken pox.....	2	German measles.....	21
Diphtheria.....	7	Lethargic encephalitis.....	2
German measles.....	1	Measles.....	145
Influenza.....	10	Mumps.....	36
Mumps.....	1	Pneumonia.....	1
Ophthalmia neonatorum.....	1	Scabies.....	2
Pneumonia.....	3	Scarlet fever.....	109
Scarlet fever.....	19	Smallpox.....	39
Tuberculosis.....	22	Tuberculosis.....	47
Whooping cough.....	2	Typhoid fever.....	15
		Whooping cough.....	24
	TENNESSEE		WEST VIRGINIA
Cerebrospinal meningitis:			
Hawkins County.....	1	Anthrax-Barbour County.....	1
Obion County.....	1	Cerebrospinal meningitis:	
Chicken pox.....	36	Fayette County.....	1
Diphtheria.....	62	Hampshire County.....	1
Influenza.....	66	Chicken pox.....	115
Malaria.....	5	Diphtheria.....	52
Measles.....	20	Influenza.....	50
Ophthalmia neonatorum.....	3	Measles.....	57
Paratyphoid fever.....	2	Scarlet fever.....	65
Fellagra.....	3	Smallpox.....	2
Pneumonia.....	56	Tuberculosis.....	17
Scarlet fever.....	66	Typhoid fever.....	22
Tetanus.....	1	Whooping cough.....	54
Tuberculosis.....	23		
Typhoid fever.....	33	WISCONSIN	
Whooping cough.....	59	Milwaukee:	
		Chicken pox.....	81
	TEXAS	Diphtheria.....	26
Chicken pox.....	12	German measles.....	2
Diphtheria.....	78	Lethargic encephalitis.....	1
Influenza.....	7	Measles.....	11
Measles.....	2	Mumps.....	41
Mumps.....	2	Ophthalmia neonatorum.....	1
Pneumonia.....	4	Pneumonia.....	17
Poliomyelitis.....	2	Scarlet fever.....	8
Scarlet fever.....	55	Tuberculosis.....	12
Small pox.....	2	Typhoid fever.....	1
Typhoid fever.....	3	Whooping cough.....	42
Whooping cough.....	12	Scattering:	
		Cerebrospinal meningitis.....	1
	UTAH	Chicken pox.....	238
Chicken pox.....	57	Diphtheria.....	42
Diphtheria.....	9	German measles.....	3
German measles.....	3	Influenza.....	36
Measles.....	291	Measles.....	515
Mumps.....	17	Mumps.....	45
Pneumonia.....	12	Pneumonia.....	17
Scarlet fever.....	15	Scarlet fever.....	115
Smallpox.....	1	Smallpox.....	8
Tuberculosis.....	1	Tuberculosis.....	13
Whooping cough.....	6	Typhoid fever.....	5
		Whooping cough.....	120
	VERMONT		
Chicken pox.....	58	WYOMING	
Diphtheria.....	2	Cerebrospinal meningitis—Hot Springs County.....	5
Measles.....	125	Chicken pox.....	9
Mumps.....	28	Diphtheria.....	2
Scarlet fever.....	4	German measles.....	1
Whooping cough.....	72	Measles.....	13
		Mumps.....	1
	WASHINGTON	Paratyphoid fever.....	1
Cerebrospinal meningitis.....	6	Pneumonia (broncho).....	2
Chicken pox.....	160	Scarlet fever.....	13
Diphtheria.....	30	Whooping cough.....	8

December 10, 1926

Reports for Week Ended November 27, 1926

DISTRICT OF COLUMBIA	Cases	NORTH DAKOTA—continued	Cases
Chicken pox	21	Mumps	2
Diphtheria	19	Pneumonia	6
Measles	2	Poliomyelitis	1
Pneumonia	13	Scarlet fever	76
Scarlet fever	12	Smallpox	13
Tuberculosis	19	Tuberculosis	5
Typhoid fever	2	Whooping cough	3
Whooping cough	5		
IDAHO		SOUTH CAROLINA	
Chicken pox	4	Chicken pox	62
Diphtheria	3	Dengue	1
Measles	27	Diphtheria	76
Scarlet fever	36	Hookworm disease	18
Smallpox	3	Influenza	642
Tuberculosis (pulmonary)	3	Malaria	179
Whooping cough	5	Measles	8
NORTH DAKOTA		Paratyphoid fever	4
Chicken pox	75	Pellagra	26
Diphtheria	6	Scarlet fever	39
German measles	15	Smallpox	15
Lethargic encephalitis	1	Tuberculosis	43
Measles	163	Typhoid fever	27
		Whooping cough	36

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
<i>Iowa, 1926</i>										
February	3	82			587		0	250	220	0
March	1	56	626		972		0	238	128	2
April	1	41	11		870		0	232	213	2
May	0	43			650		1	134	135	3
<i>September, 1926</i>										
Arkansas	1	13	96	601	18	44	1	18	14	164
Wyoming	0	3	5		19		0	24	1	6
<i>October, 1926</i>										
Delaware	0	15	0	1	3		2	51	0	24
Florida	0	181	9	45	5	1	0	33	22	52
Idaho	3	28	2		31		0	127	1	16
Iowa	1	114			28		1	177	12	33
Mississippi	229	2,278	8,080	220	392	4	1	103	18	202
Montana	5	9	9		308		3	254	35	19
Oregon	5	72	70	3	53		8	218	79	37
Rhode Island	0	41	13		6		4	21	0	4
South Carolina	0	676	1,615	3,506	46	235	28	114	14	356
Virginia	2	689	909	153	127	8	11	393	11	220
Washington	13	191	11		80		2	293	90	55
Wyoming	0	6	1		21		3	59	0	6

	<i>September, 1926</i>	<i>October, 1926</i>		
Chicken pox:			Continued	
Arkansas	73		Lethargic encephalitis:	
Wyoming	9		Oregon	1
Hookworm disease:			Washington	4
Arkansas	10		Mumps:	
Mumps:			Florida	9
Arkansas	32		Idaho	9
Wyoming	1		Iowa	11
Ophthalmia neonatorum:			Mississippi	191
Arkansas	3		Montana	2
Paratyphoid fever:			Oregon	42
Arkansas	12		Rhode Island	1
Wyoming	2		Washington	93
Rocky Mountain spotted or tick fever:			Wyoming	2
Wyoming	1		Ophthalmia neonatorum:	
Septic sore throat:			Mississippi	20
Wyoming	1		Paratyphoid fever:	
Trachoma:			Florida	3
Arkansas	3		South Carolina	17
Tularæmia:			Washington	2
Wyoming	1		Puerperal septicemia:	
Whooping cough:			Mississippi	58
Arkansas	133		Rabies (in animals):	
Wyoming	15		Mississippi	11
<i>October, 1926</i>			Oregon	3
Chicken pox:			South Carolina	16
Delaware	8		Washington	1
Florida	3		Scabies:	
Idaho	65		Iowa	2
Iowa	98		Oregon	25
Mississippi	132		Septic sore throat:	
Montana	129		Idaho	2
Oregon	91		Oregon	3
Rhode Island	17		Rhode Island	3
South Carolina	44		Washington	1
Virginia	118		Wyoming	1
Washington	370		Tetanus:	
Wyoming	39		Florida	1
Conjunctivitis:			Trachoma:	
Idaho	5		Mississippi	7
Dengue:			Montana	2
Florida	1		Washington	1
Mississippi	101		Tularæmia:	
South Carolina	35		Wyoming	4
Dysentery:			Typhus fever:	
Mississippi (amebic)	49		Florida	2
Mississippi (bacillary)	453		Wyoming	2
Oregon	6		Vincent's angina:	
Virginia	211		Iowa	1
Washington	10		Whooping cough:	
German measles:			Delaware	4
Florida	3		Florida	20
Iowa	4		Idaho	10
Rhode Island	1		Iowa	30
Washington	10		Mississippi	782
Wyoming	1		Montana	24
Hookworm disease:			Oregon	27
Florida	133		Rhode Island	19
South Carolina	156		South Carolina	202
Mississippi	286		Virginia	723
Virginia	13		Washington	37
Impetigo contagiosa:			Wyoming	29
Iowa	1			
Oregon	8			

December 10, 1926

**Number of Cases of Certain Communicable Diseases Reported for the Month
of September, 1926, by State Health Officers**

State	Chick-en pox	Diph- theria	Meas- sles	Mump	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama.	25	141	57	29	66	15	242	393	114
Arizona.	9	6	14	4	13		96	10	
Arkansas.	73	13	18	32	18	14	62	164	133
California.	299	503	1,289	412	425	34	744	127	280
Colorado.	11	90	22	3	54	14	119	52	24
Connecticut.	17	42	25	8	58	0	130	34	110
Delaware.		8			19	0	19	10	4
District of Columbia.	9	48	3		25	0	106	24	57
Florida.	4	80	27	26	19	39	46	48	28
Georgia.	36	165	21	21	37	20	74	339	68
Idaho.	6	28	9	7	48	2	12	27	38
Illinois.	115	273	236	77	376	26	1,291	308	714
Indiana.	7	125	54		155	26	151	190	147
Iowa.	10	45	20	2	60	10	64	9	21
Kansas.	34	48	37	9	139	8	133	124	231
Kentucky ¹ .									
Louisiana.	1	73	3	2	23	9	159	129	15
Maine.	27	13	82	4	81	0	26	33	64
Maryland.	14	95	16	17	71	1	186	283	200
Massachusetts.	107	209	70	142	353	0	494	51	379
Michigan.	59	369	78	12	323	12	509	127	519
Minnesota.	53	189	66		437	2	260	36	107
Mississippi.	239	145	246	278	36	4	352	418	1,174
Missouri.	6	93	49	28	157	8	126	162	137
Montana.	17	29	18	4	74	9	41	16	22
Nebraska.									
Nevada ² .									
New Hampshire ³ .									
New Jersey.	54	173	36		174	0	392	138	452
New Mexico.	1	12	6	6	14	8	101	46	36
New York.	246	538	328	214	394	3	1,831	478	1,157
North Carolina.	14	432	62		213	30		335	894
North Dakota.	10	6	24	11	104	16	15	14	84
Ohio.	120	374	56	29	360	18	595	573	779
Oklahoma ⁴ .	9	122	36	4	86	2	156	535	66
Oregon.	20	34	27	23	87	33	61	42	15
Pennsylvania.									
Rhode Island.	3	17	7	2	15	0	21	12	42
South Carolina.	35	304	24		37	23	164	443	88
South Dakota.	15	9	90	3	94	0	11	11	40
Tennessee.	18	140	25	7	130	7	138	881	219
Texas ⁵ .									
Utah ⁶ .									
Vermont.	17	3	98	15	23	0	117	3	135
Virginia.	41	280	138		185	8	135	294	609
Washington.	57	110	39	58	159	59	141	61	57
West Virginia.	20	81	48		104	25	44	212	192
Wisconsin.	67	117	381	53	198	19	160	43	911
Wyoming.	9	3	19	1	24	1	1	8	15

¹ Pulmonary.² Reports received weekly.³ Report not received at time of going to press.⁴ Reports received annually.⁵ Exclusive of Oklahoma City and Tulsa.

Case Rates per 1,000 Population (annual basis) for the Month of September, 1926

State	Chick-en pox	Diph- theria	Meas- sles	Mumps	Scarlet fever	Small- pox	Tuber- culosis	Ty- phoid fever	Whoop- ing cough
Alabama	.12	.69	.28	.14	.32	.07	1.18	1.92	.56
Arizona	.26	.17	.40	.12	.38		2.77	.29	
Arkansas	.47	.08	.12	.21	.12	.09	.40	1.07	.86
California	.88	1.48	3.80	1.21	1.25	.10	2.19	.37	.82
Colorado	.13	1.06	.26	.04	.64	.16	1.40	.61	.28
Connecticut	.13	.33	.20	.06	.60	.00	1.01	.27	.86
Delaware		.41			.98	.00	1.46	.51	.21
District of Columbia	.22	1.15	.07		.60	.00	2.53	.57	1.36
Florida	.04	.87	.30	.28	1.21	.43	.50	.52	.31
Georgia	.14	.65	.08	.08	.15	.08	.29	1.34	.27
Idaho	.15	.68	.22	.17	1.16	.05	1.05	.65	.92
Illinois	.20	.47	.41	.13	.65	.04	2.23	.53	1.23
Indiana	.03	.49	.21		.61	.10	.60	.75	.58
Iowa	.05	.22	.10	.01	.29	.05	.31	.04	.10
Kansas	.23	.32	.25	.06	.93	.05	.89	.83	1.54
Kentucky ¹									
Louisiana	.01	.47	.02	.01	.15	.06	1.02	.83	.10
Maine	.42	.20	1.27	.06	1.26	.00	.40	.51	.99
Maryland	.11	.74	.13	.13	.56	.01	1.46	2.22	2.30
Massachusetts	.31	.61	.20	.41	1.03	.00	1.44	.15	1.10
Michigan	.17	1.06	.22	.03	.93	.03	1.46	.36	1.49
Minnesota	.25	.89	.31		2.05	.01	1.22	.17	.50
Mississippi	1.62	.99	1.67	1.89	.24	.03	2.39	2.84	7.98
Missouri	.02	.33	.17	.09	.55	.03	.44	.57	.48
Montana	.31	.53	.33	.07	1.35	.16	.75	.29	.40
Nebraska ¹									
Nevada ¹									
New Hampshire ¹									
New Jersey	.18	.59	.12		.59	.00	1.34	.47	1.54
New Mexico	.03	.38	.19	.19	.45	.25	3.21	1.46	1.15
New York	.27	.58	.36	.23	.43	.07	1.98	.52	1.25
North Carolina	.06	1.88	.27		.93	.13	1.46	3.89	
North Dakota	.18	.11	.42	.19	1.82	.28	.26	.25	1.47
Ohio	.23	.71	.11	.05	.68	.03	1.13	1.09	1.48
Oklahoma ²	.05	.73	.22	.02	.52	.01	.93	3.26	.40
Oregon	.28	.48	.38	.33	1.23	.47	.87	.60	.21
Pennsylvania									
Rhode Island	.06	.32	.13	.04	.28	.00	.40	.23	.79
South Carolina	.24	2.06	.16		.25	.16	1.11	3.00	.60
South Dakota	.27	.16	1.63	.05	1.70	.00	.20	.20	.72
Tennessee	.09	.70	.12	.03	.65	.03	.69	4.39	1.09
Texas ³									
Utah ²									
Vermont	.59	.10	3.42	.52	.79	.00	1.59	.10	4.66
Virginia	.20	1.38	.68		.91	.04	1.66	1.45	3.44
Washington	.46	.89	.32	.47	1.29	.48	1.14	.49	.46
West Virginia	.15	.61	.36		.78	.19	.33	1.59	1.44
Wisconsin	.29	.50	1.64	.23	.85	.08	.73	.18	3.91
Wyoming	.48	.16	1.02	.05	1.29	.05	.65	.43	.90

¹ Pulmonary.² Reports received weekly.³ Report not received at time of going to press.¹ Reports received annually.² Exclusive of Oklahoma City and Tulsa.

December 10, 1926.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

Diphtheria.—For the week ended November 20, 1926, 41 States reported 2,702 cases of diphtheria. For the week ended November 21, 1925, the same States reported 2,298 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of more than 30,400,000, reported 1,345 cases of diphtheria for the week ended November 20, 1926. Last year for the corresponding week they reported 1,007 cases. The estimated expectancy for these cities was 1,392 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty-nine States reported 4,215 cases of measles for the week ended November 20, 1926, and 3,576 cases of this disease for the week ended November 21, 1925. One hundred and one cities reported 788 cases of measles for the week this year, and 1,273 cases last year.

Poliomyelitis.—The health officers of 41 States reported 40 cases of poliomyelitis for the week ended November 20, 1926. The same States reported 70 cases for the week ended November 21, 1925.

Scarlet fever.—Scarlet fever was reported for the week as follows: Forty-one States—this year, 3,905 cases; last year, 3,435 cases; 101 cities—this year, 1,242 cases; last year, 1,021 cases; estimated expectancy, 942 cases.

Smallpox.—For the week ended November 20, 1926, 41 States reported 370 cases of smallpox. Last year for the corresponding week they reported 292 cases. One hundred and one cities reported smallpox for the week as follows: 1926, 28 cases; 1925, 93 cases; estimated expectancy, 47 cases. No deaths from smallpox were reported by these cities for the week this year.

Typhoid fever.—Six hundred and fifty-nine cases of typhoid fever were reported for the week ended November 20, 1926, by 41 States. For the corresponding week of 1925 the same States reported 627 cases of this disease. One hundred and one cities reported 92 cases of typhoid fever for the week this year and 96 cases for the corresponding week last year. The estimated expectancy for these cities was 95 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia were reported for the week by 95 cities, with a population of more than 29,730,000, as follows: 1926, 760 deaths; 1925, 865 deaths.

City reports for week ended November 20, 1926

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during non-epidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1917 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Population July 1, 1925, estimated	Chick-en pox, cases re-por-ted	Diphtheria		Influenza		Meas-les, cases re-por-ted	Mump-s, cases re-por-ted	Pneu-monia, deaths re-por-ted
			Cases, es-ti-mated ex-pec-tancy	Cases re-por-ted	Cases re-por-ted	Deaths re-por-ted			
NEW ENGLAND									
Maine:									
Portland.....	75,333	20	2	0	1	0	1	0	2
New Hampshire:									
Concord.....	22,546	0	0	0	0	0	0	0	0
Manchester.....	83,097	0	5	1	0	1	10	0	0
Vermont:									
Barre.....	10,008	1	0	1	0	0	13	0	0
Burlington.....	24,089	2	0	0	0	0	0	0	1
Massachusetts:									
Boston.....	779,620	73	64	37	4	0	2	40	23
Fall River.....	128,993	1	5	4	1	1	1	4	4
Springfield.....	142,065	5	4	2	0	0	2	0	1
Worcester.....	190,757	22	7	7	0	0	0	2	2
Rhode Island:									
Pawtucket.....	69,760	0	2	0	0	0	0	0	3
Providence.....	267,918	0	10	4	0	0	0	0	3
Connecticut:									
Bridgeport.....	(1)	1	10	3	1	0	1	3	0
Hartford.....	160,197	7	10	0	0	0	0	2	4
New Haven.....	178,927	8	4	1	0	0	0	0	2
MIDDLE ATLANTIC									
New York:									
Buffalo.....	538,016	53	25	16	1	0	3	5	10
New York.....	5,873,356	170	197	182	77	9	13	79	150
Rochester.....	316,786	11	11	5	-----	1	2	0	3
Syracuse.....	182,003	8	12	3	-----	0	19	12	6
New Jersey:									
Camden.....	128,642	17	6	18	1	1	1	0	3
Newark.....	452,513	41	17	5	5	0	5	9	13
Trenton.....	132,020	2	7	2	1	0	0	0	4
Pennsylvania:									
Philadelphia.....	1,979,364	151	82	58	-----	6	4	11	62
Pittsburgh.....	631,363	82	35	30	-----	3	7	0	20
Reading.....	112,707	15	4	0	-----	0	2	1	1
Scranton.....	142,266	0	5	4	-----	0	0	1	9
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	409,333	13	25	24	0	1	2	11	11
Cleveland.....	936,485	47	50	131	0	1	3	1	12
Columbus.....	279,836	13	7	14	0	0	1	50	8
Toledo.....	287,380	80	19	8	0	0	2	0	6
Indiana:									
Fort Wayne.....	97,846	2	4	8	0	1	0	0	2
Indianapolis.....	358,819	65	12	27	0	1	0	0	12
South Bend.....	80,091	7	3	4	0	0	12	0	0
Terre Haute.....	71,071	2	4	4	0	0	0	0	2
Illinois:									
Chicago.....	2,905,239	176	163	78	12	9	130	30	48
Peoria.....	81,564	8	1	0	0	0	38	9	4
Springfield.....	63,923	11	3	0	0	0	2	0	3

¹ No estimate made.

December 10, 1926

City reports for week ended November 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick-en pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—continued									
Michigan:									
Detroit.....	1,245,824	123	71	108	2	0	2	17	32
Flint.....	130,316	26	14	5	0	0	3	0	3
Grand Rapids.....	153,698	6	8	2	0	0	0	0	1
Wisconsin:									
Kenosha.....	50,891	12	3	1	0	0	0	0	0
Madison.....	46,385	14	1	2	0	0	1	0	2
Milwaukee.....	500,192	121	34	20	1	1	11	33	19
Racine.....	67,707	53	2	2	0	0	1	14	0
Superior.....	39,671	3	1	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Duluth.....	110,502	11	4	0	0	0	79	0	1
Minneapolis.....	425,435	169	30	35	0	1	0	1	17
St. Paul.....	246,001	38	21	11	0	0	13	8	12
Iowa:									
Davenport.....	52,469	0	2	1	0	0	6	1	—
Des Moines.....	141,441	0	7	5	0	0	0	0	—
Sioux City.....	76,411	29	3	2	0	0	0	0	—
Waterloo.....	36,771	50	1	0	0	0	1	0	—
Missouri:									
Kansas City.....	367,481	85	15	6	1	1	0	3	10
St. Joseph.....	78,342	6	5	1	0	0	0	1	7
St. Louis.....	821,543	21	58	43	2	1	3	5	—
North Dakota:									
Fargo.....	26,403	12	1	1	0	0	0	2	2
South Dakota:									
Aberdeen.....	15,036	7	0	0	0	0	0	0	—
Sioux Falls.....	30,127	4	1	0	0	0	0	0	—
Nebraska:									
Lincoln.....	60,941	9	2	0	0	0	3	1	1
Omaha.....	211,768	11	8	4	0	0	1	2	2
Kansas:									
Topeka.....	55,411	32	4	2	0	0	0	0	3
Wichita.....	88,367	13	8	1	0	0	1	0	3
SOUTH ATLANTIC									
Delaware:									
Wilmington.....	122,049	10	4	0	0	0	0	0	2
Maryland:									
Baltimore.....	796,296	143	36	23	9	2	3	3	18
Cumberland.....	33,741	0	1	0	1	0	1	0	1
Frederick.....	12,035	0	0	1	0	0	1	0	0
District of Columbia:									
Washington.....	497,906	33	27	15	0	0	5	0	8
Virginia:									
Lynchburg.....	30,395	0	2	2	0	0	1	0	4
Norfolk..... ⁽¹⁾	8	6	2	0	0	0	0	0	7
Richmond.....	186,403	8	17	20	0	0	6	0	6
Roanoke.....	53,208	1	5	5	0	0	0	0	2
West Virginia:									
Charleston.....	49,019	4	4	1	0	0	1	0	1
Huntington.....	63,485	0	3	8	0	0	1	0	—
Wheeling.....	56,208	22	4	3	1	0	1	0	0
North Carolina:									
Raleigh.....	30,371	0	3	2	0	0	0	0	0
Wilmington.....	37,061	3	0	4	0	0	0	2	5
Winston-Salem.....	69,031	2	2	15	0	0	1	0	—
South Carolina:									
Charleston.....	73,125	0	3	1	14	0	0	0	3
Columbia.....	41,225	0	1	4	0	0	0	0	0
Greenville.....	27,311	0	2	3	0	0	0	0	1
Georgia:									
Atlanta..... ⁽¹⁾	0	9	39	14	2	1	0	0	13
Brunswick.....	16,809	0	0	0	0	0	0	0	0
Savannah.....	93,134	3	4	2	1	0	0	1	1

¹ No estimate made.

City reports for week ended November 20, 1926—Continued

Division, State, and city	Population July 1, 1925, estimated	Chick-en pox cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases estimated expectancy	Cases reported	Cases reported	Deaths reported			
SOUTH ATLANTIC—CON.									
Florida:									
Miami	60,754	0		2	0	0	1	0	0
St. Petersburg	26,847		1			0			1
Tampa	94,743	0	1	6	0	0	8	0	4
EAST SOUTH CENTRAL									
Kentucky:									
Covington	58,300	1	3	9	0	0	0	0	1
Louisville	305,935	7	13	12	0	1	1	0	8
Tennessee:									
Memphis	174,533	5	13	13	0	2	0	0	7
Nashville	186,220	2	5	11	0	1	0	0	8
Alabama:									
Birmingham	205,670	1	7	17	16	2	5	3	7
Mobile	65,955	0	2	0	0	0	0	0	2
Montgomery	46,481	0	2	9	1	0	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	31,643	0	1	0	0		0	2	
Little Rock	74,216	0	4	1	0		0	1	2
Louisiana:									
New Orleans	414,493	1	12	17	7	7	5	0	14
Shreveport	57,857	1	1	4	0	0	0	0	0
Oklahoma:									
Oklahoma City	(1)	1	5	3	6	1	0	0	2
Texas:									
Dallas	194,450	2	14	35	0	0	1	0	5
Galveston	48,375	0	1	1	0	0	0	0	2
Houston	164,954	2	5	12	0	0	0	0	9
San Antonio	198,069	0	4	6	0	0	0	0	3
MOUNTAIN									
Montana:									
Billings	17,971	4	1	0	0	0	53	0	0
Great Falls	29,883	17	2	0	0	0	0	0	0
Helena	12,037	0	0	0	0	0	0	0	0
Missoula	12,668	1	1	0	0	0	0	5	0
Idaho:									
Boise	23,042	6	1	0	0	0	0	0	0
Colorado:									
Denver	280,911	12	14	12		1	6	4	8
Pueblo	43,787	10	5	0	0	0	0	0	1
New Mexico:									
Albuquerque	21,000	0	1	0	0	0	0	0	0
Arizona:									
Phoenix	38,660	0	0	1	0	0	0	0	2
Utah:									
Salt Lake City	130,948	45	4	4	0	0	155	4	3
Nevada:									
Reno	12,665	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	(1)	80	6	4	0		1	10	
Spokane	108,897	27	4	1			78	0	
Tacoma	104,455	16	3	14	0	0	0	0	0
Oregon:									
Portland	282,383	12	9	8	0	0	3	1	5
California:									
Los Angeles	(1)	29	39	80	11	0	3	14	14
Sacramento	72,260	2	3	0	1	1	36	12	5
San Francisco	557,530	53	17	22	1	0	64	40	2

1 No estimate made.

December 10, 1926

City reports for week ended November 20, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re- ported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
NEW ENGLAND											
Maine:											
Portland	2	1	0	0	0	0	0	0	0	6	17
New Hampshire:											
Concord	1	0	0	0	0	0	0	0	0	0	4
Manchester	2	3	0	0	0	2	0	0	0	0	14
Vermont:											
Barre	0	0	0	0	0	0	0	0	0	0	5
Burlington	1	0	0	0	0	1	0	0	0	4	4
Massachusetts:											
Boston	39	71	0	0	0	16	2	1	0	20	217
Fall River	1	4	0	0	0	1	2	0	0	0	32
Springfield	7	2	0	0	0	2	0	0	0	2	37
Worcester	30	16	0	0	0	1	0	1	0	6	37
Rhode Island:											
Pawtucket	0	0	0	0	0	0	1	0	0	0	21
Providence	6	15	0	0	0	1	0	0	0	4	58
Connecticut:											
Bridgeport	7	21	0	0	0	1	1	0	0	1	24
Hartford	6	5	0	0	0	0	0	0	0	1	24
New Haven	6	5	0	0	0	0	1	1	0	0	32
MIDDLE ATLANTIC											
New York:											
Buffalo	18	21	0	0	0	6	1	2	2	21	142
New York	105	131	1	0	0	104	20	15	4	64	1,384
Rochester	7	11	0	0	0	1	1	5	1	8	59
Syracuse	12	1	0	0	0	2	1	1	0	18	56
New Jersey:											
Camden	3	2	0	0	0	3	1	4	2	1	42
Newark	15	16	0	0	0	3	2	3	0	29	95
Trenton	2	1	0	0	0	4	0	0	1	6	51
Pennsylvania:											
Philadelphia	61	57	0	0	0	35	5	13	1	28	530
Pittsburgh	37	17	0	0	0	7	1	0	0	13	158
Reading	2	3	0	0	0	0	0	0	0	7	24
Scranton	2	3	0	0	0	11	0	0	0	8	50
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	13	13	0	0	0	7	1	0	1	5	134
Cleveland	28	18	1	0	0	11	3	1	0	28	186
Columbus	9	14	1	1	0	3	1	0	0	1	69
Toledo	12	14	1	0	0	3	1	1	0	27	60
Indiana:											
Fort Wayne	2	2	1	1	0	0	0	0	0	0	20
Indianapolis	11	14	3	3	0	1	0	0	0	19	98
South Bend	4	2	1	0	0	0	0	0	0	0	11
Terre Haute	3	6	0	0	0	0	0	0	0	0	14
Illinois:											
Chicago	109	90	1	0	0	25	5	5	1	63	646
Peoria	6	2	0	0	0	1	0	0	1	1	21
Springfield	2	3	1	0	0	0	0	0	2	23	
Michigan:											
Detroit	70	71	2	0	0	23	3	1	0	41	259
Flint	9	18	0	0	0	0	1	0	0	0	24
Grand Rapids	8	20	0	0	0	3	0	0	0	0	32
Wisconsin:											
Kenosha	1	5	1	0	0	1	0	0	0	1	7
Madison	1	7	0	0	0	0	0	0	0	0	11
Milwaukee	26	17	2	0	0	6	0	0	0	61	115
Racine	4	2	0	0	0	2	0	0	0	5	11
Superior	2	0	1	0	0	2	0	0	0	0	17

¹ Pulmonary tuberculosis only.

City reports for week ended November 20, 1926—Continued

December 10, 1926

City reports for week ended November 20, 1926—Continued

Division, State, and city	Scarlet fever		Smallpox			Typhoid fever			Whooping cough, cases reported	Deaths, all causes
	Cases, estimated expectancy	Cases reported	Cases, estimated expectancy	Cases reported	Deaths reported	Tuberculosis, deaths reported	Cases, estimated expectancy	Cases reported	Deaths reported	
WEST SOUTH CENTRAL										
Arkansas:										
Fort Smith.....	2	1	0	0			1	1	1	1
Little Rock.....	2	2	0	0		7	1	0	1	8
Louisiana:										
New Orleans.....	6	6	0	0	0	6	2	1	0	4
Shreveport.....	1	1	0	0	0	0	1	0	1	18
Oklahoma:										
Oklahoma City.....	3	4	0	1	0	1	1	0	0	31
Texas:										
Dallas.....	5	14	0	1	0	2	1	0	0	61
Galveston.....	0	1	0	0	0	0	1	0	0	14
Houston.....	1	0	0	0	0	4	0	0	0	56
San Antonio.....	1	2	0	0	0	7	0	1	0	57
MOUNTAIN										
Montana:										
Billings.....	1	0	0	0	0	0	0	0	0	3
Great Falls.....	1	1	1	0	0	0	0	0	0	6
Helena.....	0	0	0	0	0	1	0	0	0	7
Missoula.....	0	11	1	0	0	0	0	0	0	4
Idaho:										
Boise.....	1	0	0	0	0	0	0	0	0	7
Colorado:										
Denver.....	9	56	4	0	0	18	1	1	0	82
Pueblo.....	1	0	0	0	0	1	0	1	0	12
New Mexico:										
Albuquerque.....	0	0	0	0	0	10	1	0	0	19
Arizona:										
Phoenix.....	3	3	0	0	0	8	0	0	0	18
Utah:										
Salt Lake City.....	3	2	1	0	0	3	0	1	0	36
Nevada:										
Reno.....	0	0	0	0	0	0	0	0	0	7
PACIFIC										
Washington:										
Seattle.....	8	12	3	0			1	3		10
Spokane.....	6	22	2	0			0	1		6
Tacoma.....	2	1	2	14	0	0	0	0	0	3
Oregon:										
Portland.....	7	31	3	3	0	3	1	0	0	61
California:										
Los Angeles.....	20	63	2	4	0	21	2	0	0	2
Sacramento.....	2	9	1	0	0	1	0	3	0	22
San Francisco.....	9	18	0	0	0	8	1	4	0	18

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
NEW ENGLAND									
Massachusetts:									
Boston.....	0	0	0	0	1	0	1	0	0
Worcester.....	0	0	1	0	0	0	0	0	0
Connecticut:									
Hartford.....	1	0	0	0	0	0	0	0	0
MIDDLE ATLANTIC									
New York:									
New York.....	2	2	6	2	0	0	5	3	0
New Jersey:									
Newark.....	0	0	1	0	0	0	1	1	1
Pennsylvania:									
Philadelphia.....	1	0	2	1	0	0	1	1	0

City reports for week ended November 20, 1926—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST NORTH CENTRAL									
Ohio:									
Cleveland.....	1	0	0	0	0	0	0	1	0
Indiana:									
Indianapolis.....	1	0	0	0	0	0	0	0	0
Illinois:									
Chicago.....	2	1	0	0	0	0	1	0	0
Wisconsin:									
Milwaukee.....	4	1	0	0	0	0	0	0	0
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	0	0	0	2	0	0	0	0	0
St. Paul.....	0	0	1	0	0	0	1	0	0
Nebraska:									
Lincoln.....	0	0	0	0	0	0	0	1	0
SOUTH ATLANTIC									
Maryland:									
Baltimore.....	1	0	0	0	0	0	0	0	0
District of Columbia:									
Washington.....	0	1	0	0	0	0	0	0	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Georgia:									
Savannah.....	0	0	0	0	1	0	0	0	0
EAST SOUTH CENTRAL									
Kentucky:									
Louisville.....	0	1	0	0	0	0	0	0	0
Tennessee:									
Nashville.....	1	1	0	0	0	0	0	0	0
Alabama:									
Birmingham.....	0	0	1	0	0	0	0	0	0
Mobile.....	0	0	0	0	0	2	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock.....	0	0	0	0	1	4	0	0	0
Louisiana:									
New Orleans.....	1	0	0	0	1	0	0	0	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	0	0
Houston.....	1	1	0	0	0	0	0	0	0
MOUNTAIN									
Colorado:									
Pueblo.....	0	1	0	0	0	0	0	0	0
PACIFIC									
California:									
Los Angeles.....	0	0	0	0	1	1	0	0	2

The following table gives the rates per 100,000 population for 101 cities for the five-week period ended November 20, 1926, compared with those for a like period ended November 21, 1925. The population figures used in computing the rates are approximate estimates as of July 1, 1925 and 1926, respectively, authoritative figures for many of the cities not being available. The 101 cities reporting cases had an estimated aggregate population of nearly

December 10, 1926

30,000,000 in 1925 and nearly 30,500,000 in 1926. The 95 cities reporting deaths had more than 29,200,000 estimated population in 1925 and more than 29,730,000 in 1926. The number of cities included in each group and the estimated aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, October 17 to November 20, 1926—Annual rates per 100,000 population, compared with rates for the corresponding period of 1925¹

DIPHTHERIA CASE RATES

	Week ended—									
	Oct. 24, 1925	Oct. 23, 1926	Oct. 31, 1925	Oct. 30, 1926	Nov. 7, 1925	Nov. 6, 1926	Nov. 14, 1925	Nov. 13, 1926	Nov. 21, 1925	Nov. 20, 1926
101 cities	² 163	203	³ 176	213	161	224	160	⁴ 228	176	230
New England	⁵ 94	85	132	106	93	118	122	135	139	139
Middle Atlantic	128	122	148	138	125	142	140	162	143	159
East North Central	180	261	186	241	178	276	185	264	180	292
West North Central	256	240	278	264	264	252	285	⁴ 216	221	213
South Atlantic	⁶ 252	302	213	357	198	319	236	391	271	278
East South Central	100	400	89	384	126	425	63	265	121	368
West South Central	101	280	251	331	189	254	203	379	167	327
Mountain	361	255	³ 170	155	277	218	240	182	305	146
Pacific	135	191	149	205	141	288	138	232	177	326

MEASLES CASE RATES

101 cities	² 91	40	³ 102	64	149	81	169	⁴ 106	222	135
New England	⁵ 578	26	582	24	822	66	903	31	¹ ,090	47
Middle Atlantic	87	12	110	13	159	16	170	44	255	28
East North Central	45	47	54	77	70	80	84	100	.97	121
West North Central	10	42	12	85	14	151	10	⁴ 152	14	197
South Atlantic	⁶ 37	26	56	9	144	21	217	24	271	54
East South Central	37	21	16	21	16	26	16	10	47	31
West South Central	13	4	4	0	9	9	9	26	9	26
Mountain	28	337	³ 19	391	.37	792	46	¹ ,529	28	1,948
Pacific	11	278	14	342	17	315	19	280	30	491

SCARLET FEVER CASE RATES

101 cities	² 127	152	³ 155	169	163	189	182	⁴ 208	178	213
New England	⁵ 125	194	194	246	261	265	237	352	201	331
Middle Atlantic	96	51	106	92	110	94	142	125	143	129
East North Central	135	155	185	157	159	189	180	185	187	202
West North Central	284	373	292	354	358	415	354	⁴ 354	401	407
South Atlantic	⁶ 126	163	180	133	173	199	161	178	115	145
East South Central	121	223	74	332	100	249	168	296	126	228
West South Central	40	95	40	112	97	112	114	142	88	116
Mountain	111	446	³ 189	364	166	583	176	701	157	637
Pacific	127	235	141	237	155	205	196	280	188	337

SMALLPOX CASE RATES

101 cities	² 7	3	³ 10	3	9	3	8	⁴ 5	16	5
New England	⁵ 7	0	0	0	0	0	0	0	0	0
Middle Atlantic	0	0	0	0	0	0	0	0	0	0
East North Central	4	3	16	1	12	6	13	10	31	3
West North Central	4	0	25	2	10	2	4	⁴ 10	16	4
South Atlantic	⁶ 0	9	6	6	12	0	6	2	19	4
East South Central	5	10	5	5	26	10	32	10	11	0
West South Central	0	0	0	4	0	9	0	30	0	4
Mountain	9	0	³ 9	9	18	0	18	9	18	0
Pacific	75	16	44	22	47	3	41	5	75	49

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1925 and 1926, respectively.

² Barre, Vt., and Winston-Salem, N. C., not included.

³ Helena, Mont., not included.

⁴ Sioux City, Iowa, not included.

⁵ Barre, Vt., not included.

⁶ Winston-Salem, N. C., not included.

Summary of weekly reports from cities, October 17 to November 20, 1926—Annual rates per 100,000 population, compared with rates for the corresponding period of 1925—Continued.

TYPHOID FEVER CASE RATES

	Week ended—									
	Oct. 24, 1925	Oct. 23, 1926	Oct. 31, 1925	Oct. 30, 1926	Nov. 7, 1925	Nov. 6, 1926	Nov. 14, 1925	Nov. 13, 1926	Nov. 21, 1926	Nov. 20, 1926
101 cities.....	232	26	25	27	27	24	11	21	17	16
New England.....	14	19	17	12	22	17	2	9	31	7
Middle Atlantic.....	25	20	21	14	12	12	8	21	20	21
East North Central.....	9	13	15	17	18	13	9	10	3	5
West North Central.....	33	22	18	24	31	26	16	17	14	6
South Atlantic.....	73	77	23	75	60	45	10	36	29	23
East South Central.....	147	99	100	140	168	104	42	52	32	36
West South Central.....	79	22	79	39	48	22	57	34	31	13
Mountain.....	65	27	25	46	37	91	9	27	18	27
Pacific.....	30	13	19	19	8	46	3	30	6	30

INFLUENZA DEATH RATES

95 cities.....	28	7	10	11	13	11	11	14	8	10
New England.....	2	7	12	7	5	12	7	2	2	2
Middle Atlantic.....	8	8	10	8	14	9	14	10	6	10
East North Central.....	9	5	7	14	11	6	10	10	6	10
West North Central.....	6	2	11	2	6	6	13	13	2	6
South Atlantic.....	2	8	6	21	17	15	2	17	13	8
East South Central.....	5	10	26	10	37	21	26	26	42	31
West South Central.....	19	14	34	24	15	43	29	71	10	33
Mountain.....	37	27	19	9	9	18	0	27	18	9
Pacific.....	4	0	4	7	15	7	4	14	18	4

PNEUMONIA DEATH RATES

95 cities.....	88	85	117	96	133	101	132	106	146	123
New England.....	87	83	108	99	134	99	120	90	139	104
Middle Atlantic.....	89	104	136	101	143	113	143	114	160	135
East North Central.....	79	60	114	86	119	84	131	85	139	106
West North Central.....	40	49	97	63	86	84	81	76	101	120
South Atlantic.....	116	113	129	107	194	120	152	139	146	143
East South Central.....	121	99	105	135	152	99	163	166	221	171
West South Central.....	111	57	116	80	150	118	102	113	155	156
Mountain.....	111	127	127	182	102	104	176	155	222	109
Pacific.....	76	99	47	89	91	50	109	99	87	75

^a Barre, Vt., and Winston-Salem, N. C., not included.

^b Helena, Mont., not included.

^c Sioux City, Iowa, not included.

^d Barre, Vt., not included.

^e Winston-Salem, N. C., not included.

Number of cities included in summary of weekly reports, and aggregate population of cities in each group, approximated as of July 1, 1925 and 1926, respectively

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases		Aggregate population of cities reporting deaths	
			1925	1926	1925	1926
Total.....	101	95	29,900,058	30,427,508	29,221,551	29,733,613
New England.....	12	12	2,176,124	2,206,124	2,176,124	2,206,124
Middle Atlantic.....	10	10	10,346,970	10,476,970	10,346,970	10,476,970
East North Central.....	16	16	7,481,656	7,655,436	7,481,656	7,655,436
West North Central.....	12	10	2,550,024	2,589,131	2,431,253	2,466,448
South Atlantic.....	21	21	2,716,070	2,776,070	2,716,070	2,776,070
East South Central.....	7	7	563,103	1,004,933	933,103	1,004,933
West South Central.....	8	6	1,184,057	2,112,057	1,078,198	1,163,605
Mountain.....	9	9	563,912	572,773	563,912	572,773
Pacific.....	6	4	1,888,142	1,934,084	1,434,245	1,460,144

FOREIGN AND INSULAR

THE FAR EAST

Report for week ended November 13, 1926.—The following report for the week ended November 13, 1926, was transmitted by the Eastern Bureau of the Secretariat of the Health Section of the League of Nations, located at Singapore, to the Headquarters at Geneva:

Maritime towns	Plague				Cholera				Small-pox				Maritime towns	Plague				Cholera				Small-pox			
	Cases		Deaths		Cases		Deaths		Cases		Deaths			Cases		Deaths		Cases		Deaths		Cases		Deaths	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
British India:																									
Calcutta	0	0	19	2	2	2																			
Bombay	0	0	0	0	4	0																			
Madras	0	0	0	0	3	0																			
Straits Settlements:																									
Singapore	0	0	3	3	6	1																			
Dutch East Indies:																									
Cheribon	0	0	0	0	0	0																			
Surabaya	0	0	0	0	1	0																			
Siam: Bangkok	0	0	2	1	2	1																			
French Indo-China:																									
Saigon and Cholon	0	0	1	1	0	0																			
Turane	0	0	10	6	0	0																			
Haiphong	0	0	22	8	0	0																			
Korea: Fusan	0	0	0	0	2	0																			
Mauritius: Port Louis	2	0	0	0	0	0																			

Telegraphic reports from the following maritime towns indicated that no case of plague, cholera, or smallpox was reported during the week:

ASIA

Arabia.—Aden, Jeddah, Kamaran, Perim.
 Iraq.—Basrah.
 Persia.—Mohammerah, Bender-Abbas, Bushire.
 British India.—Rangoon, Karachi, Chittagong.
 Cochin, Vizagapatam, Negapatam, Tuticorin.
 Portuguese Indies.—Nova Goa.
 Ceylon.—Colombo.
 Federated Malay States.—Port Swettenham.
 Straits Settlements.—Penang.
 Dutch East Indies.—Samarang, Batavia, Sabang, Makassar, Banjermasin, Palembang, Pontianak, Belawan-Deli, Padang, Samarinda, Balikpapan.
 Sarawak.—Kuching.
 British North Borneo.—Sandakan, Jesselton, Kudat, Tawau.
 Portuguese Timor.—Dilly.
 China.—Amoy, Shanghai (International Settlement).
 Hongkong.
 Macao.
 Formosa.—Keelung.
 Japan.—Yokohama, Osaka, Nagasaki, Kobe, Niigata, Tsuruga, Hakodate, Shimonoseki, Moji.
 Korea.—Chemulpo.
 Manchuria.—Mukden, Changchun, Harbin, Antung, Yingkow.
 Kwantung.—Port Arthur, Dairen.
 U. S. S. R.—Vladivostok.

AUSTRALASIA AND OCEANIA

Australia.—Adelaide, Melbourne, Sydney, Brisbane, Rockhampton, Townsville, Port Darwin, Broome, Fremantle, Carnarvon, Thursday Island.

New Guinea.—Port Moresby.

New Britain Mandated Territory.—Rabaul and Kokopo.

New Zealand.—Auckland, Wellington, Christchurch, Invercargill, Dunedin.

New Caledonia.—Noumea.

Fiji.—Suva.

Hawaii.—Honolulu.

Society Islands.—Papeete.

AFRICA

Egypt.—Port Said, Suez, Alexandria.

Anglo-Egyptian Sudan.—Port Sudan, Suakin.

Eritrea.—Massaua.

French Somaliland.—Jibuti.

British Somaliland.—Berbera.

Italian Somaliland.—Mogadiscio.

Kenya.—Mombasa.

Zanzibar.—Zanzibar.

Tanganyika.—Dar-es-Salaam.

Seychelles.—Victoria.

Madagascar.—Majunga, Tamatave.

Portuguese East Africa.—Mozambique, Beira, Lourenço Marques.

Union of South Africa.—East London, Port Elizabeth, Cape Town.

Reports had not been received in time for distribution from—

Dutch East Indies.—Tarakan, Menado.

Philippine Islands.—Manila, Iloilo, Jolo, Cebu, Zamboanga.

Union of South Africa.—Durban.

BRAZIL

Mortality from certain diseases—Para—September 26–October 30, 1926.—During the period September 26 to October 30, 1926, 50 deaths from gastroenteritis, 28 from malaria, and 8 from smallpox were reported at Para, Brazil. Population, 185,000.

Leprosy.—During the period under report leprosy was continuously reported present at Para.

CANADA

Communicable diseases—Week ended November 13, 1926.—The Canadian Ministry of Health reports cases of certain communicable diseases in seven Provinces of Canada for the week ended November 13, 1926, as follows:

Disease	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	Total
Cerebrospinal fever					1			1
Influenza	11					1		12
Poliomyelitis			2	4				6
Smallpox					25	4	9	35
Typhoid fever	3	4	9	10	1	7		34

Vital statistics—Quebec—September, 1926.—Births and deaths in the Province of Quebec for the month of September have been reported as follows:

	Estimated population	Deaths from—Continued	
Births	2,570,000	Heart disease	374
Birth rate per 1,000 population	6,598	Influenza	38
Deaths (all causes)	30,80	Measles	6
Death rate per 1,000 population	2,932	Poliomyelitis (infantile paralysis)	1
Deaths under 1 year	13,69	Scarlet fever	9
Infant mortality rate	1,171	Syphilis	6
Deaths from—	177.47	Tuberculosis (pulmonary)	189
Cancer	133	Tuberculosis (other forms)	44
Cerebrospinal meningitis	5	Typhoid fever	22
Diabetes	21	Whooping cough	47
Diphtheria	18		

CANARY ISLANDS

Plague—Las Palmas—November 2, 1926.—Three cases of plague were reported, November 2, 1926, at Las Palmas, Canary Islands. The occurrence was stated to be in a locality removed from the port.

EGYPT

Plague—October 22–28, 1926.—During the week ended October 28, 1926, a case of plague was reported in Egypt occurring in the district of Tanta.

December 10, 1926

Summary.—From January 1 to October 28, 1926, 140 cases of plague were reported in Egypt, as compared with 134 cases reported during the corresponding period of the year 1925.

ESTONIA

Communicable diseases—September, 1926.—Communicable diseases were reported in the Republic of Estonia during the month of September, 1926, as follows:

Disease	Cases	Disease	Cases
Diphtheria	10	Scarlet fever	246
Leprosy	1	Tuberculosis	123
Measles	103	Typhoid fever	93
Paratyphoid fever	25		

Population, census, 1,107,059.

LATVIA

Communicable diseases—September, 1926.—During the month of September, 1926, communicable diseases were reported in the Republic of Latvia as follows:

Disease	Cases	Disease	Cases
Diphtheria	40	Rabies	2
Dysentery	22	Scarlet fever	292
Erysipelas	18	Tetanus	2
Measles	13	Trachoma	20
Mumps	1	Typhoid fever	102
Paratyphoid fever	3	Whooping cough	46
Puerperal fever	1		

Population, 1,850,000.

Botulism.—During the same period eight cases of botulism were reported in the Republic of Latvia.

MALTA

Communicable diseases—October, 1926.—During the month of October, 1926, communicable diseases were reported in the island of Malta as follows:

Disease	Cases	Disease	Cases
Broncho-pneumonia	6	Pneumonia	5
Diphtheria	6	Puerperal infection	2
Erysipelas	2	Scarlet fever	1
Influenza	3	Trachoma	143
Lethargic encephalitis	1	Tuberculosis	17
Malaria	1	Typhoid fever	72
Malta fever	58	Whooping cough	21
Measles	19		

Population, civil, estimated, 225,242.

MEXICO

Mortality from gastroenteritis—Progreso—November 14–27, 1926—Contaminated water supply.—During the two weeks ended November 27, 1926, eight deaths from gastroenteritis were reported at Progreso, Mexico. Population, 9,089. Contamination of cisterns and other water supplies was reported.

PERU

Communicable diseases—Lima—August, 1926.—During the month of August, 1926, communicable diseases were reported in the city of Lima, Peru, as follows:

Disease	Cases	Disease	Cases
Gastroenteritis.....	27	Puerperal septicemia.....	1
Influenza.....	10	Tuberculosis.....	73
Malaria.....	11	Typhoid fever.....	3
Plague.....	1		

Population, 240,000.

UNION OF SOUTH AFRICA

Plague—Cape Province—October 10–16, 1926.—During the week ended October 16, 1926, two fatal cases of plague were reported in the Cape Province, Union of South Africa, of which one (native or colored) occurred in Hanover District and one (European) in Kimberley District. Both cases occurred on farms.

Smallpox.—Outbreaks of smallpox were reported during the period under report as follows: In the Umgeni area, Durban, 12 cases, of which 11 cases were Hindus and 1 case native; at Prospect Hall, Inanda District, 1 case, native, in a contact with the Durban cases. The cases were removed to Salisbury Island quarantine, Durban Bay.

YUGOSLAVIA

Communicable diseases—September, 1926.—During the month of September, 1926, communicable diseases were reported in Yugoslavia as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Anthrax.....	89	10	Scarlet fever.....	470	75
Meningococcus meningitis.....	3	2	Tetanus.....	32	18
Diphtheria.....	180	38	Typhoid fever.....	586	52
Dysentery.....	264	24	Whooping cough.....	195	12
Measles.....	293	3			

December 10, 1926

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended December 10, 1926¹**CHOLERA**

Place	Date	Cases	Deaths	Remarks
China:				
Canton	Aug. 25-31	30	8	
Shanghai	Oct. 10-23	3	1	Cases, foreign; deaths, native and foreign in international concessions.
Tsingtao	Oct. 10-16			Present.
Siam				Oct. 10-16, 1926: Cases, 1; deaths, 3. Apr. 1-Oct. 16, 1926: Cases, 7,670; deaths, 5,043.
Bangkok	Oct. 10-16	1		

PLAQUE

Canary Islands:				
Las Palmas	Nov. 2	3		Stated to be in locality removed from port.
Egypt:				Oct. 22-28, 1926: Cases, 1. Jan. 1-Oct. 28, 1926: Cases, 140; corresponding period, year 1925: Cases, 134.
Tanta District	Oct. 22-28	1		
India:				
Madras Presidency	Oct. 3-9	114	46	
Rangoon	Oct. 10-16	3	1	
Siam				Apr. 1-Oct. 16, 1926: Cases, 15; deaths, 10.
Union of South Africa:				
Cape Province—				
Hanover District	Oct. 10-16	1	1	Native. On farm.
Kimberley District	do	1	1	European. On farm.

SMALLPOX

Brazil:				
Bahia	Oct. 4-10	2	2	
Para	Sept. 26-Oct. 30	9	8	
Pernambuco	Sept. 26-Oct. 2	25	3	
Canada:				
Alberta	Nov. 7-13	9		
Calgary	Nov. 16-22	3		
Manitoba	Nov. 7-13	25		
Ontario	do	17		
Kingston	Oct. 31-Nov. 6	1		
Toronto	Nov. 14-20	7		
Saskatchewan	Nov. 7-13	4		
Ceylon:				
Colombo	Oct. 10-16	1		Developed in infectious disease hospital.
China:				
Chungking	do			Present.
Egypt:				
Alexandria	Oct. 15-21	1	1	
France:				
Paris	Oct. 21-31	11	6	
Great Britain:				
England and Wales	Oct. 24-Nov. 6	433		
Newcastle-on-Tyne	Nov. 7-13	1		
Sheffield	Oct. 31-Nov. 13	11		
India:				
Karachi	Oct. 24-30	1		
Madras	do	1		
Mexico:				
Torreón	Nov. 7-13		2	
Persia:				
Teheran	July 24-Aug. 23		4	
Portugal:				
Oporto	Oct. 31-Nov. 6	1	1	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued
Reports Received During Week Ended December 10, 1926—Continued
SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Union of South Africa: Natal— Durban.....	Oct. 10-16.....	12	.....	In the Umgeli area, Hindus 11; native, 1.

TYPHUS FEVER

Chile:				
Concepcion.....	October, 1926.....			
Iquique.....	Oct. 16.....	1	.....
Valparaiso.....	Oct. 31-Nov. 6.....	4	.....
China:				
Manchuria— Harbin.....	Oct. 14-20.....	1	.....
Iraq:				
Bagdad.....	Oct. 10-16.....	1	.....
Mexico:				
Mexico City.....	Oct. 31-Nov. 6.....	8	.....	Including municipalities in Federal district.
Palestine:				
Birtuvia.....	Oct. 31-Nov. 6.....	1	.....
Jaffa.....	do.....	1	.....
Nazareth.....	do.....	3	.....
Persia:				
Teheran.....	Ju.y 24-Aug. 23.....		3	
Peru:				
Lima.....	Aug. 1-31.....	1	.....
Union of South Africa:				
Orange Free State— Brandfort District.....	Oct. 10-16.....			Outbreak on farm.

Reports Received from June 26 to December 3, 1926¹
CHOLERA

Place	Date	Cases	Deaths	Remarks
Ceylon.....				
China:				
Amoy.....	Aug. 8-Oct. 23.....	271	.....	Apr. 18-May 29, 1926: Cases, 31; deaths, 29.
Antung.....	Aug. 1-31.....	500	.....
Canton.....	June 1-30.....	38	14	
Do.....	July 15-31.....	54	23	
Changsha.....	Oct. 3-16.....	2	.....
Foochow.....	Aug. 15-Oct. 2.....		1	
Kulangsu.....	Sept. 12-18.....		2	
Manchuria— Changshun.....	Aug. 1-31.....	320	.....
Dairen.....	do.....	10	1	
Harbin.....	Aug. 5-Sept. 12.....	280	83	
Newchwang.....	Aug. 1-31.....	167	.....
Nanking.....	July 25-Oct. 2.....			
Shanghai.....	Reported July 20.....	35	8	Present.
Do.....	July 25-Oct. 9.....	40	419	Cases, foreign; deaths, native and foreign.
Swatow.....	July 11-Oct. 16.....	50	63	
Tsingtao.....	July 11-Aug. 30.....	4	4	Japanese settlements, 10 deaths; Chinese, 30 to 40 deaths daily; estimated.
Chosen:				
North Heian Province.....	Sept. 3-16.....	70	30	Deaths estimated.
Shingishu.....	Sept. 13.....	19	.....	Including places in vicinity.
French Settlements in India.....	Mar. 7-June 26.....	31	30	
Do.....	June 27-Aug. 28.....	94	83	

¹ From medical officers of the Public Health Service, American consuls, and other sources.

December 10, 1926

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**Reports Received from June 26 to December 3, 1926—Continued****CHOLERA—Continued**

Place	Date	Cases	Deaths	Remarks
India:				
Bombay	May 30-June 5	1	1	
Do.	July 18-Oct. 16	4	4	
Calcutta	Apr. 4-May 29	478	418	
Do.	June 13-26	73	69	
Do.	June 27-Sept. 25	304	272	
Madras	May 16-June 5	2	1	
Do.	Aug. 1-Sept. 25	7	6	
Rangoon	May 9-June 26	67	44	
Do.	June 27-Sept. 4	31	29	
Indo-China:				
Saigon	May 2-15	52	48	
Do.	May 22-June 26	42	32	
Do.	June 27-Aug. 14	31	17	
Japan:				To Sept. 10, 1926: Cases, 35.
Ken (Prefecture)—				
Hiroshima	To Sept. 10	1		
Hyogo	do	7		
Kagakawa	do	8		
Kanagawa	do	3		Including Yokohama.
Kochi	do	1		
Okayama	do	7		
Osaka	do	6		
Taihoku	Sept. 1-10	2		
Wakayama	To Sept. 10	2		
Taiwan Island	Sept. 21-Oct. 10	11		
Philippine Islands:				
Manila	Dec. 29, 1925-Oct.	26	6	
Provinces—	2, 1926.			
Albay	Apr. 18-24	1	1	
Davao	May 23-29	1		
Mindoro	Feb. 21-Mar. 6	3	3	
Pampanga	July 25-31	1	1	
Rizal	July 18-24	1		
Romblon	Dec. 14-31	42	43	
Do.	Jan. 2-Mar. 27	41	35	
Siam:				
Bangkok	May 2-June 12	1,325	736	Apr. 1-Oct. 9, 1926: Cases, 7,660; deaths, 5,040.
Do.	June 20-26	56	26	
Do.	June 27-Oct. 9	96	68	
Straits Settlements:				
Singapore	July 4-17	2	1	
On vessel:				
Steamship Macedonia	Aug. 5	7		At Yokohama, Japan. Vessel sailed from Singapore July 18, 1926.

PLAQUE

Algeria:				
Algiers	June 21-30	1		
Do.	July 1-20	1		
Do.	Sept. 23	1		
Bona	Aug. 14			
Oran	Sept. 21-Oct. 10	1	4	
Philippeville	Sept. 7	1		
Azores:				
Fajal Island—				
Horta	Aug. 2-29	2	2	
St. Michaels Island	May 9-June 26	4	1	
Do.	June 27-July 10	3	1	
Brazil:				
Paranagua	Oct. 8			Present.
British East Africa:				
Kisumu	May 16-22	1	1	
Do.	Aug. 17-Sept. 11	3	2	
Uganda	Mar. 1-June 30	732	574	
Canary Islands:				
Tenerife	Aug. 2	2		
Ceylon:				
Colombo	May 29-June 5	1	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued
Reports Received from June 26 to December 3, 1926—Continued .
PLAGUE—Continued

Place	Date	Cases	Deaths	Remarks
Chile:				
Iquique.....	June 20-26.....		1	
China:				
Amoy.....	Apr. 18-June 26.....	40	30	
Do.....	June 27-Aug. 7.....	28		
Foochow.....	June 6-July 31.....			
Nanking.....	May 9-Sept. 18.....			
Swatow.....	July 25-31.....	14		
Ecuador.....				
Chimborazo.....	January-June.....	9	2	
Guayaquil.....	May 16-June 30.....	6		
Do.....	July 1-Oct. 31.....	19	3	Rats taken, 766.
Leon.....	January-June.....	43	19	Rats taken, 30,914; found infected, 31.
Loja.....	do.....	176	75	Localities, 2.
Tungurahua.....	do.....	83	29	Cantons, 2.
At Ambato, Huachi, and Pica-yhua. Rats taken, 1,542.				
Egypt:				
City:				
Alexandria.....	July 27-Aug. 12.....	4	1	
Suez.....	May 21-July 1.....	9	5	
Do.....	July 29.....	2		
Provinces—				
Behera.....	July 23-Aug. 15.....	4	1	
Beni-Suef.....	May 23-June 8.....	8	2	
Charkieh.....	July 27.....	1	1	
Gharbieh.....	June 2.....	1	1	
Minieh.....	July 24.....	1	1	
Sidi Barrani.....	Sept. 30-Oct. 21.....	23	3	In western desert.
France:				
Marseille.....	July 8.....	1	1	Reported July 24.
Paris.....	Oct. 18.....	1		
St. Denis.....	Reported Aug. 2.....	1		Vicinity of Paris.
St. Ouen.....	Aug. 14.....	2		Suburb of Paris.
Great Britain:				
Liverpool.....	Aug. 29-Sept. 4.....	2	1	
Greece:				
Athens.....	Apr. 1-May 31.....	16	4	Including Piraeus.
Do.....	Aug. 1-Sept. 30.....	20	5	Do.
Patras.....	May 27-June 12.....	4	1	
Do.....	July 25-Oct. 29.....	9	5	
Zante.....	May 17.....	1		
Hawaii Territory:				
Hamakua.....	June 9.....			1 plague rodent trapped near Hamakua Mill.
Honokaa.....	Oct. 6.....	1	1	
Pauhau.....	July 18-24.....			Plague-infected rat trapped.
India:				
Bombay.....	May 2-June 26.....	16	15	Apr. 25-June 16, 1926 Cases, 53,001; deaths, 41,576. June 27-Oct. 2, 1926 Cases, 9,026; deaths, 5,143.
Do.....	July 18-Oct. 9.....	13	12	
Karachi.....	May 23-June 26.....	15	13	
Do.....	July 11-17.....	1	1	
Madras Presidency.....	Apr. 25-June 26.....	162	93	
Do.....	July 4-Oct. 2.....	831	399	
Rangoon.....	May 9-June 26.....	20	15	
Do.....	June 27-Oct. 9.....	84	74	
Indo-China:				
Saigon.....	May 23-June 26.....	8	3	
Do.....	July 18-Aug. 7.....	2	1	
Iraq:				
Bagdad.....	Apr. 18-June 12.....	161	108	
Do.....	July 18-Sept. 11.....	4	4	
Japan:				
Yokohama.....	July 2-Aug. 10.....	9	80	
Java:				
Batavia.....	Apr. 24-June 19.....	65	65	
Do.....	June 26-Oct. 16.....	89	87	
Cheribon.....	April 11-24.....	3	3	
Do.....	Sept. 12-18.....	1	1	
East Java and Madura.....	June 13-19.....	1	1	
Do.....	July 25-Oct. 16.....	1	2	
Surabaya.....	Aug. 22-Sept. 25.....	18	2	

December 10, 1926

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**Reports Received from June 26 to December 3, 1926—Continued****PLAGUE—Continued**

Place	Date	Cases	Deaths	Remarks
Madagascar:				
Ambositra Province	May 1-15	4	4	
Antsirabé Province	June 16-30	4	4	
Itasy Province	do	17	10	
Do.	Aug. 16-Sept. 15	7	7	
Maevatanana	do	2	2	
Majunga Province	June 16-30	10	6	
Do.	Aug. 16-Sept. 15	57	48	
Mananjary Province	do	1	1	
Moramanga Province	Apr. 1-15	2	2	
Do.	Sept. 1-15	8	8	
Tamatave Province	Aug. 16-Sept. 15	17	12	
Tananarive Province				
Towns—				
Majunga	Aug. 1-15	14	10	
Tamatave (Port)	May 16-31	1	1	
Do.	July 1-Aug. 15	6	5	
Tananarive	Apr. 1-June 30	7	7	
Do.	July 1-Sept. 15	28	28	
Mauritius:				
Port Louis	July 31	1	1	
Nigeria:				
Peru:				
Departments—				
Ancash	May 1-31			
Do.	July 1-Sept. 30	2		
Cajamarca	May 1-June 30	10	4	
Do.	Aug. 1-Sept. 30	1		
Ica	May 1-31	1		
Do.	July 1-31	1		
Junin	Sept. 1-30	21	20	
Lambayeque	do	1		
Libertad	May 1-31	4		
Do.	Sept. 1-30	3	1	
Lima	May 1-June 30	29	12	
Do.	July 1-Sept. 30	60	31	
Piura	June 1-30	13		
Russia:				
Senegal:				
Siam:				
Bangkok	May 23-June 26	2	2	
Do.	July 18-24	1	1	
Straits Settlements:				
Singapore	May 2-8	1	1	
Do.	July 4-17	1	1	
Syria:				
Beirut	July 1-Aug. 10	2		
Do.	Oct. 15			Present.
Tunisia:				
Do.	May 11-June 30	174		
Kairouan	July 1-Aug. 20	13		
Kairouan	June 9	3		9 cases 30 miles south of Kairouan.
Turkey:				
Constantinople	Aug. 1-Sept. 25	7	4	
Union of South Africa:				
Cape Province	May 16-22	5	3	
Calvinia District	June 13-26	12	6	
Do.	June 27-Aug. 21	3	3	
Williston District	June 13-26	2		
Do.	June 27-July 3	1		
Orange Free State—				
Hoopstad District	Aug. 15-21	1		
Protestpan	May 9-22	3	3	
On vessel:				
Steamship Zaria	September, 1926	2	2	At Liverpool, England, from Lagos, Nigeria, West Africa; 29 plague-infected rats found on board.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued
Reports Received from June 26 to December 3, 1926—Continued
SMALLPOX

Place	Date	Cases	Deaths	Remarks
Algeria:				
Algiers	May 21-June 20	14		July 21-Sept. 20, 1926: Cases, 230.
Do.	July 1-Aug. 31	3		
Arabia:				
Aden	Oct. 3-9	1		Imported.
Belgium				Sept. 1-30, 1926: Cases, 2.
Antwerp	Aug. 1-7	1	1	
Bolivia:				
La Paz	May 1-June 30	14	7	
Do.	July 1-Aug. 31	16	8	
Brazil:				
Bahia	June 20-26	1		
Do.	June 27-Oct. 2	71	39	
Manaos	Apr. 1-30		5	
Para	May 16-June 26	26	25	
Do.	June 27-Sept. 25	29	19	
Pernambuco	July 11-Sept. 25	166	22	
Porto Alegre	Aug. 10-31	2		
Rio de Janeiro	May 2-June 19	132	91	
Do.	July 4-Sept. 25	2,534	1,338	
Do.	Oct. 3-16	196	113	Jan. 1-Oct. 16, 1926: Cases, 3,001;
Sao Paulo	June 27-Aug. 22		5	deaths, 1,896.
Santos	Mar. 1-7		1	
British East Africa:				
Mombasa	July 5-11	5	4	
Tanganyika	May 1-31	252	46	
Uganda	Mar. 1-May 31	3		
British South Africa:				
Northern Rhodesia	May 18-24	17	6	Natives.
Do.	June 8-14	5		
Do.	Sept. 11-17	1		
Canada				
Alberta				
Calgary	Sept. 5-Nov. 13	44		May 30-June 26, 1926: Cases, 70.
British Columbia				June 27-Nov. 6, 1926: Cases, 359.
Vancouver				May 30-June 12, 1926: Cases, 3.
Manitoba				June 27-Nov. 6, 1926: Cases, 73.
Winnipeg	Aug. 16-Sept. 12	3		
Do.	June 6-12	5		May 30-June 26, 1926: Cases, 15.
New Brunswick	July 4-Nov. 6	13		June 27-Nov. 6, 1926: Cases, 53.
Northumberland County	Oct. 11-23	1		Oct 31—Nov. 6, 1926: 1 case.
Ontario				
Fort William	July 25-Aug. 7	2		May 30-June 26, 1926: Cases, 36.
Kingston	May 23-June 26	5		June 27-Nov. 6: Cases, 127.
Do.	July 11-17	2		
Kitchener	Apr. 26-May 29	3	1	
North Bay	May 2-22	5		
Do.	July 25-31	2		
Orillia	Apr. 26-May 29	7		
Ottawa	July 18-24	1		
Packenham	do	10		
Peterboro	Sept. 1-30	10		
Toronto	July 18-Nov. 13	31		
Waterloo	July 18-24	6		
Saskatchewan				
Regina	July 4-Sept. 25	3		May 30-June 26, 1926: Cases, 16.
Ceylon				June 27-Nov. 6: Cases, 105.
Colombo	Sept. 19-Oct. 2	6		Mar. 14-May 29, 1926: Cases, 44;
Ceylon				deaths, 3. Sept. 12-18, 1926: Cases, 2.
Chile:				
Antofagasta	June 6-12	1		
China:				
Amoy	May 1-June 26	4	8	
Do.	July 4-10	1		
Antung	May 17-June 19	5		
Do.	July 4-18	2		
Canton	May 1-31	4	2	
Changsha	Aug. 8-14	1		
Chungking	May 2-Oct. 9			Present.
Foochow	do			Do.
Fushun	Sept. 12-18	1		

December 10, 1926

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued
Reports Received from June 26 to December 3, 1926—Continued
SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China—Continued.				
Hongkong	May 2-June 26	19	10	
Do.	June 27-July 3	1	1	
Manchuria	July 4-31	18		Railway stations.
An-shan	May 16-June 12	5		South Manchurian Railway.
Antung	May 16-June 19	5		
Changchun	May 16-June 26	6		
Do.	June 27-Sept. 11	2		
Dairen	Apr. 26-June 20	69	18	
Do.	June 28-Aug. 8	5	3	
Fushun	May 16-June 5	4		
Harbin	May 14-June 30	21		
Do.	July 1-28	12		
Kai-yuan	May 16-June 30	10		
Kung-chuling	June 13-19	1		
Liaoyang	May 16-June 30	4		
Mukden	do.	4		
Penhsiu	May 16-June 19	4		
Do.	Aug. 8-Oct. 3	3		
Ssupingal	May 16-June 30	2		
Do.	Aug. 1-7	1		
Teshihchiao	May 16-June 30	2		
Tieh-ling	Sept. 27-Oct. 3	1		
Wa-feng-tien	do.	3		
Do.	Aug. 1-7	1		
Nanking	May 8-Sept. 18			Present
Shanghai	May 2-June 26	10	25	Cases, foreign: Deaths, population of international concession, foreign and native.
Do.	June 27-July 24	3	3	
Do.	Oct. 3-9	1		
Swatow	May 9-Oct. 23			Sporadic.
Tientsin	June 2-26		1	Reported by British municipality.
Wanshien	May 1			Prevalent.
Chosen				Mar. 1-June 30, 1926: Cases, 667; deaths, 146. July 1-31, 1926: Cases, 82; deaths, 27.
Fusan	May 1-31	1		
Seishun	do.	2	1	
Egypt:				
Alexandria	May 15-July 1	18	3	
Do.	July 23-Oct. 7	13	6	
Cairo	Jan. 29-May 13	39	8	
Estonia				May 1-June 30, 1926: Cases, 3.
France				Mar. 1-June 30, 1926: Cases, 141.
Paris	Sept. 1-Oct. 20	54	12	July 1-Aug. 31: Cases, 24.
St. Etienne	Apr. 18-June 15	7	3	
Do.	Sept. 16-30	2	1	
French Settlements in India	Mar. 7-June 26	282	282	
Do.	June 27-Aug. 28	68	68	
Germany:				
Coblenz	Oct. 24-30	1		
Gold Coast	Mar. 1-June 30	9		
Do.	July 1-31	20	1	
Great Britain:				
England and Wales				May 23-June 26, 1926: Cases, 933; June 27-Oct. 23, 1926: Cases, 1,764.
Birmingham	Sept. 26-Oct. 2	1		
Bradford	May 23-29	1		
Do.	Aug. 29-Sept. 4	1		
Hull	Oct. 17-23	1		
London	Sept. 26-Oct. 23	4		
Newcastle-on-Tyne	June 6-12	1		
Do.	July 11-Oct. 30	5		
Nottingham	May 2-June 5	7		
Do.	July 18-24	1		
Sheffield	June 13-19	1		
Do.	July 4-Oct. 23	21		
South Shields	Oct. 3-9	1		
Greece:				At Gateshead, several cases reported.
Athens	July 1-31	71	6	Including Piraeus.
Saloniki	June 1-14		3	
Guatemala:				
Guatemala City	June 1-30	2		
India				Apr. 25-June 26, 1926: Cases, 54,851; deaths, 14,771. June 27-Oct. 2, 1926: Cases, 27,415; deaths, 8,365.
Bombay	May 2-June 26	220	134	
Do.	June 27-Oct. 16	122	67	
Calcutta	Apr. 4-May 20	171	152	
Do.	June 13-26	24	18	
Do.	June 27-Oct. 2	45	42	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**Reports Received from June 26 to December 3, 1926—Continued****SMALLPOX—Continued**

Place	Date	Cases	Deaths	Remarks
India—Continued.				
Karachi	May 16-June 26	44	18	
Do.	June 27-Oct. 2	14	7	
Madras	May 16-June 26	7	4	
Do.	June 27-Oct. 23	78	21	
Rangoon	May 9-June 26	10	5	
Do.	July 4-Sept. 11	21	4	
Indo-China:				
Saigon	May 9-June 26	2		
Iraq:				
Baghdad	do	8	3	
Do.	July 4-Sept. 11	3	1	
Basra	Apr. 18-June 22	34	25	
Do.	Aug. 15-21	1		
Italy				
Catania	Aug. 9-15	2		
Rome	June 14-20	4		
Jamaica				
Do.				
Japan				
Kobe	May 30-June 5	1		
Nagoya	May 16-June 22		1	
Do.	July 4-10	1		
Taiwan Island	May 11-20	24		
Do.	June 1-20	23		
Do.	July 11-Aug. 10	2		
Tokyo	June 26-July 17	3		
Yokohama	May 2-8	2		
Java:				
Batavia	May 15-June 25	2		Province.
Do.	July 24-Oct. 16	17		Do.
East Java and Madura	Apr. 11-July 3	100	6	
Do.	July 4-Oct. 2	61	3	
Malang	Apr. 4-10	6	1	Interior.
Surabaya	May 16-22	14	1	
Do.	July 18-Sept. 25	143	8	
Latvia				
Mexico:				
Aguascalientes	June 13-26	3		Apr. 1-June 30, 1926: Cases, 5.
Guanajuato	June 8-14	2		Feb. 1-June 30, 1926: Deaths, 1,525.
Do.	June 29-Sept. 27	8		
Mexico City	May 16-June 5	3		Including municipalities in Federal District.
Do.	July 25-Sept. 25	6		Do.
Saltillo	July 18-24	1		Present; 100 miles from Chihuahua.
San Antonio de Areales	Jan. 1-June 30			
San Luis Potosi	June 13-26	7		
Do.	July 4-Nov. 13	23		
Torreón	May 1-June 30	17		
Do.	July 1-Oct. 23	14		
Netherlands:				
Amsterdam	July 18-24	9		Feb. 1-June 30, 1926: Cases, 521; deaths, 49.
Nigeria				
Persia:				
Teheran	Apr. 21-July 23	10		
Peru:				
Arequipa	June 1-30	1		Mar. 28-May 1, 1926: Cases, 12; deaths, 1. June 27-Sept. 11, 1926: Cases, 416; deaths, 1.
Poland				
Portugal:				
Lisbon	Apr. 26-June 19	10	3	Jan. 1-Apr. 30, 1926: Cases, 2,529;
Do.	July 11-Nov. 6	35	7	Apr. 1-Oct. 2, 1926: Cases, 506; deaths, 234.
Oporto	May 23-June 5	4		
Do.	July 11-24	2		
Russia				
Siam:				
Bangkok	May 2-June 12	23	20	
Do.	July 4-Oct. 2	77	60	
Spain				Jan. 1-June 30, 1926: Deaths, 99.
Valencia	Aug. 22-Oct. 23	3		

December 10, 1926

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued
Reports Received from June 26 to December 3, 1926—Continued
SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
Straits Settlements:				
Singapore	Apr. 25-May 1	1		
Do.	July 11-17	1		
Sumatra:				
Medan	Aug. 22-28			1 case varioloid.
Switzerland:				
Lucerne Canton	June 1-30	1		
Do.	July 1-31	2		
Tripolitania:	Apr. 1-June 30	12		
Tunisia:				
Tunis	Aug. 11-30	2		
Union of South Africa:				
Cape Province	June 1-30	8	1	Apr. 1-June 30, 1926: Cases, 17. July 1-Sept. 30, 1926: Cases, 38.
Do.	June 20-26			Outbreaks.
Idutya district	Aug. 15-21			Do.
Natal	May 23-29			Do.
Orange Free State	May 30-June 5			Do.
Transvaal	June 20-Aug. 28			June 6-12, 1926: Outbreaks in Pietersburg and Rustenburg districts.
Do.	Aug. 29-Sept. 4	1		Native.
Johannesburg	May 9-June 12	5		
Do.	July 11-Sept. 25	4		
Pretoria	Sept. 19-25	1		
Yugoslavia:				Apr. 15-30, 1926: Cases, 2; deaths, 1.
Zagreb	Aug. 9-15	2		
On vessels:				
S. S. Karapara				At Zanzibar, June 7, 1926: 1 case of smallpox landed. At Dur- ban, Union of South Africa, June 16, 1926: 1 suspect case landed.
Steamship	July 2	1		Vessel from Glasgow, Scotland, for Canada. Patient from Glasgow; removed at quar- antine on outward voyage.

TYPHUS FEVER

Algeria:				
Algiers	May 21-June 30	7	1	July 21-Sept. 20, 1926: Cases, 34; deaths, 1.
Do.	July 21-Aug. 31	3		
Argentina:				
Rosario	Feb. 1-28	2		
Bolivia:				
La Paz	June 1-30		1	
Do.	Aug. 1-31	9	1	
Bulgaria				Mar. 1-June 30, 1926: Cases, 87; deaths, 14.
Chile:				
Antofagasta	May 23-June 26	4		
Do.	June 27-July 3	1		
Concepcion	June 1-7		1	
Valparaiso	Apr. 29-May 5		1	
Do.	Aug. 14-Sept. 18	7		
China:				
Antung	June 14-27	7	1	
Do.	June 28-Oct. 24	42	1	
Canton	May 1-31	1		
Chungking	Aug. 20-Sept. 4			Present. Reported May 1, 1926. Occur- ring among troops.
Ichang			1	
Wanshien				Present among troops. Reported May 1, 1926. Locality in Chingking consular district.
Chosen:				
Chemulpo	May 1-June 30	38	2	Feb. 1-June 30, 1926: Cases, 1,006; deaths, 112. July 1-31, 1926: Cases, 37; deaths, 6.
Do.	July 1-31	7	2	
Gensan	June 1-30	1		
Seoul	do	8	3	
Do.	July 1-Aug. 31	8		
Czechoslovakia				Jan. 1-June 30, 1926: Cases, 156; deaths, 6.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued
Reports Received from June 26 to December 3, 1926—Continued
TYPHUS FEVER—Continued

Place	Date	Cases	Deaths	Remarks
Egypt:				
Alexandria	July 16-Aug. 19	3		
Do.	Oct. 1-7	1	1	
Cairo	Jan. 29-May 13	89	27	
Do.	July 23-Aug. 5	1		
Port Said	June 4-24	4	1	
Do.	July 9-Oct. 7	5	1	
France	Aug. 1-31	5		
Great Britain:				
Scotland—				
Glasgow	July 30-Aug. 21	9	1	
Greece:				
Athens	Sept. 1-30		17	
Hungary	May 1-June 30	3		
Ireland (Irish Free State):				
Cobh (Queenstown)	May 30-June 5	1		
Do.	June 27-Aug. 23	2	1	
Cork	June 5	1		
Cork County	Oct. 17-23	1		
Kerr County—				
Dingle	June 27-July 3	1		
Italy:				
Palermo	Sept. 12-18	1		
Japan				
Latvia				
Lithuania				
Mexico:				
Durango	July 1-31		1	
Mexico City	May 16-June 5	20		Including municipalities in Federal District.
Do.	June 13-19	9		Do.
Do.	July 25-31	3		Do.
Do.	Aug. 15-Oct. 30	69		Do.
San Luis Potosi	June 13-26			Present, city and country.
Morocco				Mar. 1-June 30, 1926: Cases, 426.
Norway:				July 1-Aug. 31, 1926: Cases, 20.
Stavanger	Sept. 6-12	1		
Palestine:				Mar. 1-June 30, 1926: Cases, 14; deaths, 1. Aug. 1-Oct. 25, 1926: Cases, 22.
Gaza	July 6-12	1		
Haifa	July 13-Aug. 30	5		
Halalal	Aug. 17-23	1		
Jaffa district	June 15-28	5		
Do.	Sept. 28-Oct. 25	2		
Jerusalem	Sept. 14-27	2		
Majdal district	July 13-Aug. 2	2		
Nazareth district	do	3		
Petah Tokvah	Oct. 6-11	3		
Tiberias	Aug. 3-9	1		
Yavneil	Aug. 17-23	1		
Persia:				
Teheran	May 23-June 22		1	
Peru:				
Arequipa	Jan. 1-31		2	
Poland				Mar. 28-June 26, 1926: Cases, 1,272; deaths, 85. June 27-Sept. 18, 1926: Cases, 294; deaths, 22.
Rumania				Mar. 1-June 30, 1926: Cases, 899; deaths, 83. July 1-31, 1926: Cases, 65; deaths, 9.
Russia				Jan. 1-Apr. 30, 1926: Cases, 18,647.
Spain	Jan. 1-June 30		13	
Tunisia:				Apr. 1-June 30, 1926: Cases, 110. July 1-Sept. 30, 1926: Cases, 101.
Tunis	June 11-30	3		
Turkey:				
Constantinople	June 16-22	1		
Union of South Africa				Apr. 1-May 31, 1926: Cases, 153; deaths, 19. July 1-31, 1926: Cases, 90; deaths, 17.
Do.				

December 10, 1926

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued**Reports Received from June 26 to December 3, 1926—Continued****TYPHUS FEVER—Continued**

Place	Date	Cases	Deaths	Remarks
Union of South Africa—Con. Cape Province				
Glengray district	June 27-July 3			
Grahamstown	do	1		
Natal				
Durban	July 25-Sept. 18	11	1	
Orange Free State				
Transvaal				
Johannesburg	Aug. 29-Sept. 4	1		
Walkerton district	June 20-20			
Wolmaranstad district	do			
Yugoslavia				
Zagreb	May 15-21	1		
				Apr. 1-June 30, 1926: Cases, 202; deaths, 24, native. July 1-31, 1926: Cases, 58; deaths, 15. Outbreaks.
				Apr. 1-June 30, 1926: Cases, 28. July 1-31, 1926: Cases, 23; deaths, 2.
				Apr. 1-June 30, 1926: Cases, 24; deaths, 4. July 1-31, 1926: Cases, 7.
				Apr. 1-June 30, 1926: Cases, 10; deaths, 5. July 1-31, 1926: Cases, 2. Aug. 15-21, 1926, outbreaks.
				Outbreaks. Do. Do.
				Apr. 15-June 30, 1926: Cases, 48; deaths, 7. July 1-Aug. 31, 1926: Cases, 3; deaths, 1.

YELLOW FEVER

Brazil	Reported June 26			
Bahia	May 9-June 26	10	7	Present in interior of Bahia, Pirapora, and Minas.
Do.	July 4-10	1		
Gold Coast	Apr. 1-June 30	8	4	
Nigeria	June 1-30	1	1	